

Designing a Platform that Connects People of Color to Therapists of Color

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Abstract

Being a person of color comes with a set of unique challenges. Society often discusses racism, but rarely does this discussion delve into the psychological effects of racism on communities of color. In truth, racism can induce illnesses such as anxiety, depression, and race-based stress, which is akin to post-traumatic stress disorder. Further exacerbating the situation is that there are several barriers that prevent people of color from seeking out mental healthcare treatment. From access to mental healthcare, to distrust in the system, to stigma, to a lack of culturally competent providers; people of color often find themselves with few options to treat their symptoms. This thesis examines reputable journals and articles that delve into this phenomenon. It also points to a solution: designing a digital application that connects people of color to therapists of color who can also address race-based stress if need be.

Key words: Racism, people of color, race-based stress, mental illness, mental health care, therapy, online therapy

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Chapter 1: Literature Review

Literature Review

This review is divided into multiple sections. It will delve into racism and its effects on mental health. It will then delve into the barriers to mental healthcare treatment for people of color, which includes distrust in mental health systems, stigma, lack of access, and lack of cultural competency within the field. It will then examine some solutions by taking a close look at the role of therapists of color and online therapy. Finally these findings will be combined to determine design implications for a digital web and app-based application that connects people of color to therapists of color.

Racism and its Effects

Being a person of color comes with a unique set of challenges. Scholarship shows that race in America was created to establish a system of hierarchy that idealizes whiteness and problematizes Blackness (Lawrence, Sutton, Kubisch, Susi & Fulbright-Anderson, 2004). Lawrence and Keleher (2004) state that this preferential treatment for white people often comes at the expense of Black, Latino, Asian, Pacific Islander, Native American, and Arab people. The more distanced one is from whiteness, the more “othered” they become, and the more susceptible they are to oppression (Guess, 2006; Chavez-Dueñas, Adames, Perez-Chavez & Salas, 2019). This oppression can reveal itself in different ways.

Stevtaz (2018) explains that racial oppression falls under three categories. Institutional, interpersonal, and internalized. Potapchuk, Leiderman, Bivens, and Major

(2005) wrote a report that discusses how institutional racism affects decision-making and resources within communities of color. Lawrence and Keleher (2004) expands on this by explaining that institutional racism is when policies and practices prevent people of color from accessing power, resources, services, and opportunities. It ensures that people of color have less mobility in social, economic, and political sectors. Powell (2008) discusses how institutional racism is also responsible for an unjust criminal justice system, housing discrimination, segregation in schools, barriers to employment, and barriers to healthcare.

Interpersonal racism is the conventional understanding of racism. It takes place on an individual level. Salter, Adams, and Perez (2018) state that it reveals itself as biased attitudes, beliefs and behaviors against people of color. It can be overt, subtle, ambivalent, or subconscious. Some examples of interpersonal racism include feeling that people of color are devious, displaying discomfort around people of color, using racial slurs, and being racially violent (Carter & Murphy, 2015; Sommers & Norton, 2006). Sue, Bucceri, Lin, Nadal, and Torino (2007) examined racial microaggressions through a focus group analysis of 10 Asian American individuals. The authors find that interpersonal racism also includes exchanging brief and subtle denigrating messages.

Internalized racism is often viewed as the hidden wound of racism (Hardy, 2013). Lawrence et al. (2004) explains that it is when people of color begin to believe the negative messages about themselves, their abilities and their worth. Potapchuk et al. (2005) contend that as people of color are continuously victimized by racism, they begin to accept and perpetuate beliefs, actions, and behaviors that support racism. The authors

also make it clear that internalized racism must not be confused with low self-esteem, which everyone can be vulnerable to. It is a specific issue created by systemic racism, and thus even people of color with high self-esteem struggle with it. Pyke (2010) explains that internalized racism causes people of color to shun who they are in an attempt to escape “othering”; it causes people of color to undermine their power and better judgment; and it causes conflict among and between communities of color (Potapchuk et al., 2005).

There is a lot of research that shows that racial discrimination can have negative mental health outcomes on communities of color. Causadias and Korous (2019) touch on the relationship between racial discrimination in the United States and health. The authors argue that racial discrimination leads to poor health among people of color throughout their lifetime. Comas-Diaz and Hall (2019) delve into this topic further by highlighting a phenomenon called race-based stress. Race-based stress refers to the response a person of color has following a racist encounter. Although similar to post-traumatic stress, it is unique in that it is ongoing, since people of color are continuously exposed to racist encounters. The authors note that while Black Americans are more exposed to racial discrimination than other groups, Indigenous people, Latinx people, and Asian Americans also suffer from race-based stress. The continuous nature of racism creates wounds that may never fully heal.

Causadias and Korous (2019) note that race-based stress can cause depression, anxiety, and symptoms similar to post-traumatic stress. Bhugra and Ayonrinde (2001) delve deeper into the relationship between racism and these disorders. The authors find

that rates of depression are higher among ethnic minorities with possible reasons being unemployment, poverty, and racism. In terms of anxiety, they share that high levels of anxiety have been shown to develop after a person of color has experienced a racial threat. In terms of post-traumatic stress disorder, they state that individuals display hypervigilance, poor concentration, denial, frustration, withdrawal, and flashbacks. Finally, Causadias and Korous (2019) argue that racial discrimination in the United States is a national health crisis that demands a national health solution.

Barriers to Mental Healthcare

Comas-Diaz and Hall (2019) note that numerous scholars and practitioners have developed approaches to help people of color cope with and heal from race-based experiences. These approaches include therapy and group counseling. Norris and Alegria (2005) researched mental healthcare for communities of color in the aftermath of disasters and mass violence. While the focus is on these scenarios, the authors explain that in general, communities of color often delay seeking mental health treatment unless problems are extremely severe. Communities are more inclined to use informal sources for support. This is largely due to the fact that there are several barriers preventing people of color from using therapy and counseling. Research suggests that these barriers often fall into four categories: distrust in health institutions, cultural competency of therapists, accessibility of mental health resources and stigma of mental healthcare.

Distrust in Health Institutions. A significant barrier between people of color and mental healthcare treatment is distrust in the system. Suite, La Bril, Primm and Suite (2007) examined the history of mistrust that people of color have in medical and mental

healthcare treatment. The authors argue that people of color's distrust in the health systems is due to the fact that there is a history of people of color being subject to medical experimentation and pathologization. One of the prominent examples of medical experimentation is the Tuskegee Syphilis Experiments. The authors state that in 1932, government scientists conducted a 40-year study looking at the effects of syphilis on a group of Black men in Alabama. The scientists recruited Black men with syphilis and, for forty years, observed the results of withholding treatment, without their knowledge or consent. Even after an effective treatment for syphilis (penicillin) became available in 1947, the scientists withheld it from the Black men and let the illness run its course, in some cases leading to death.

Suite et al. (2007) also discuss the non-consensual sterilization of women of color during the 1970s. During this time, Black, Puerto Rican and Chicana women who were admitted to the hospital for other operations, were often unknowingly or forcibly sterilized. Women were lied to about why they needed to be sterilized, threatened into signing consent forms, and complained about not knowing what they were signing due to language barriers. Lawrence(2000) adds to the conversation with an in-depth look at the sterilization of Indigenous women in the U.S. The author states that during the 1960s and 1970s, Indigenous women were sterilized unknowingly or without their consent. Native Americans claimed that during the 1970s, the Indian Health Services sterilized 25% of Native American women between the ages of fifteen and forty-four.

In terms of pathologization, there is a correlation between racism and the misdiagnosis of mental illnesses. Norris and Alegria (2005) note that people of color are more likely to receive care that is not consistent with evidence-based treatment recommendations, and they are also likely to face a higher risk of being misdiagnosed. Suite et al. (2007) highlight the fact that since the 1970s, practitioners have over-diagnosed schizophrenia and underdiagnosed affective disorders among Latinx, African American, and Caribbean patients. The authors add that practitioners have a history of inventing mental illnesses to further oppress communities of color. For example, in the 19th-century, physician Samuel A. Cartwright invented drapetomania. The “disease” characterized African slaves as individuals who are disobedient, destroy property, lazy and combative.

Cultural Competence of Providers. Another barrier between people of color and mental healthcare treatment is a lack of cultural competency in the field. According to Betancourt, Green, and Carillo (2002), who highlight frameworks and approaches to cultural competency, cultural competence is the ability of therapists and counselors to cater to patients of different races, values, beliefs, behaviors, and cultures. In 2000, U.S. Department of Health Services put out a report of the Surgeon General. The report stated that practitioners bring their own cultures into therapy. Thus, when practitioners and clients come from different backgrounds, the practitioner may be less likely to understand the client’s fears, concerns and needs, and more likely to ignore symptoms the client feels are important. This difference in viewpoints can reduce the effectiveness of care.

DeFreitas, Crone, Deleon, and Ajayi (2018) examine perceived and personal mental health stigma in Latino and Black college students. The students completed surveys about their stigma beliefs. The authors explain that people of color often report being concerned about whether a therapist would be able to address their needs, due to discrimination and an unwillingness or inability to understand what it means to be a person of color. Suite et al. (2007) illustrate that these concerns are based on real experiences. The authors cite that when it comes to therapy, 18% of Latinx's, 16% of Black Americans and 13% of Asian Americans felt they were disrespected by practitioners due to their race/ethnicity, their inability to speak English, or their inability to pay for services. In truth, clinicians are not immune to biases and stereotypes that society at large holds.

Scholarship also indicates that the current models for treating patients of color are not always appropriate. Comas-Diaz and Hall (2019) argue that current definitions of trauma, trauma stress and trauma treatment are based on European experiences and not those of communities of color. Green, Helms, and Nicolas (2012) echo this sentiment stating that consideration of racism and ethno-violence as catalysts for mental illnesses are missing from assessment, diagnosis, and treatment models. Meyer and Zane (2013) examined 102 clients who had received mental health treatment to determine whether factors such as race and ethnicity were important to clients and whether they improved patient satisfaction and treatment outcomes. The authors found that if clients feel like therapists cannot acknowledge what it means to be a person of color in a racialized society, they are less likely to be satisfied with their care. Sue et al. (2003) discuss mental

health treatment of people of color, and add that because traditional mental health care is often inconsiderate of people of color, individuals emerge feeling invalidated, misunderstood, abused, and oppressed.

Accessibility of Mental Health Services. Another barrier between people of color and mental healthcare treatment is accessibility. Scholarship indicates that due to location, cost, lack of insurance, and quality of service, mental healthcare is not always an option for people of color. Norris and Alegria (2005) highlight how Latinx, Black and Indigenous individuals who live in rural areas often have limited access to mental health services. McIntyre et al. (2017) note that for Indigenous populations, transport and distance to mental health services is one of the significant barriers to getting treatment.

Rowan, McAlpine, and Blewett (2013) document changes in insurance coverage and cost for mental health services for people with different types of insurance or no insurance. The authors found that individuals with mental illness who acknowledge they need treatment often cite cost or not having health insurance as the reason for not receiving care. Norris and Alegria (2005) add that people of color tend to lack insurance or money to pay for mental healthcare. Sohn (2016) and McIntyre et al. (2017) echo this sentiment by highlighting that Black, Latinx, and Indigenous communities have high chances of being uninsured, and of running into barriers due to the cost of care. Without insurance, individuals are charged incredibly high out of pocket fees to receive service. And without the money to pay for these services, individuals may end up forgoing treatment (Norris & Alegria, 2005; Rowan et al. (2013).

Scholarship indicates that another accessibility issue is quality of service. Sue et al. (2003) note that the nature of health services for communities of color are inadequate and inferior. McGuire and Miranda (2008) highlight that people of color are less likely to receive needed care than white people, and more likely to receive poor quality care than white people when they seek treatment. This rings especially true when it comes to treatment for depression and anxiety. Long wait times are also a common characteristic of poor service. Taylor and Richards (2019) highlight how Black youth in Toronto often have long wait times to receive treatment after being diagnosed. McIntyre et al. (2017) state that Indigenous individuals seeking treatment are also often deterred by long wait times.

The Stigma of Mental Healthcare. Stigma is also a significant roadblock impeding people of color from seeking out mental healthcare. Mental health stigma is the negative perception of mental illness or mental health treatment. Byrne (2000) describes mental health stigma as being afraid of mental illness, believing that mental illness is a sign of weakness, feeling the need to conceal mental illness and social exclusion. DeFreitas et al. (2018) add that stigma can also be seen in distancing oneself from someone with a mental illness, feeling discomfort around someone with mental illness, or even believing that people with mental illnesses are bad, dangerous people. Ultimately, stigma can cause individuals to underutilize or forgo mental health treatment, which can lead to poorer management of illnesses.

In a study conducted by DeFreitas et al. (2018), the authors found that the stigma of mental illness and therapy is higher in communities of color than in white communities. While there is insufficient research on where this stigma stems from, Taylor and Richards (2019) explore how gender, race and age complicate mental health stigma among young Black Caribbean women in Canada. The authors argue that stigma is caused by disparities in the way white people and people of color with mental illnesses are treated and viewed. The authors state that when Black people have a mental illness, they are pathologized or viewed as weak. This idea that mental illness is equivalent to being weak is one that plagues communities of color. Individuals often avoid treatment so that their peers do not view them as inferior. DeFreitas et al. (2018) note that Black Americans are often hesitant to seek treatment due to fears of family perception. Latinx individuals also report feelings of embarrassment concerning mental illness due to beliefs about disappointing family.

Kramer, Kwong, Lee, and Chung (2002) examine the cultural factors influencing the mental health of Asian Americans. The authors found that in Asian communities, discussing mental illness is highly stigmatized. The authors note that Asian individuals may often not be willing to express or discuss psychological states due to social stigma and shame. Mental illness is thought to reflect poorly on family lineage. Thus individuals keep what they may be dealing with private, to save face. Grandbois (2005) delved into the stigma of mental health in Indigenous populations. The author notes that because of the diversity of Indigenous groups, it is difficult to make generalizations about stigma. Some groups attach very little stigma to mental illness treatment. This is because they

view physical and psychological illnesses very similarly. However, other Indigenous groups who have accepted western constructs attach high levels of stigma to mental illnesses. Finally, DeFreitas et al. (2018) argue that to erode this stigma, communities need to be educated about mental illness and mental health treatment.

Therapists of Color

From accessibility issues to cultural incompetence, to mistrust in providers, to stigma, there are a plethora of barriers impeding people of color from getting the treatment they need to cope with race-based-stress. There is a significant discussion about the role that therapists can play in improving trust and cultural competency. Researchers and advocates assert that therapists should be trained to better deal with the issues that people of color face. Carter (2007) examines how practitioners can recognize and assess the psychological and emotional effects of racism on clients. The author states that practitioners need to receive education on race-based stress. This education should include definitions of race, racism, an understanding of power, privilege, racial oppression, and how these factors cause race-based stress. Green, Helms and Nicolas (2012) further this sentiment by recommending that practitioners conduct racially responsive assessments and interventions when working with people of color.

Meyer and Zane (2013) highlight the fact that while cultural competency training may improve patient satisfaction, there is also a call for racial matching. Racial matching in therapy is when clients are matched with a therapist of the same race/ethnicity. Sue et al. (2003) argue that there is a need to increase the number of therapists of color who can cater to communities of color and identify with their background, culture, and language.

However, Laungani (2004) argues that racial matching assumes that people of the same race or ethnicity understand each other. In truth, there is a diversity of thought and experiences within communities of the same race. The author continues to say that the idea that race alone is beneficial may lead to disappointment.

Norris and Alegria (2005) note that retention of clients of color and outcome is better when clients and clinicians are ethnically matched. Meyer and Zane (2013) echo this sentiment by discussing how there is increased use, lower dropout rates, and greater satisfaction in therapy when there is a racial match between clients and therapists. Chao, Steffen, and Heiby (2012) would agree with these findings. The authors conducted a study on 67 individuals with persistent and severe mental illnesses and found that clients who were racially matched with their clinicians felt a better therapeutic relationship and working alliance. As a result, these clients had a higher recovery status. However, Maramba and Nagayama Hall (2002) analyzed seven studies on ethnic matching which contradicted this. They found that factors such as language, understanding a client's cultural background, and openness, are what can influence the success of therapy for people of color - not necessarily ethnic matching.

Despite these contradictions, it appears that many clients themselves prefer to be racially matched. In their study, Meyer and Zane (2013) discover that people of color feel that it is significantly more important for their provider to be racially matched than white people do. This is often the first thing that people of color think about when searching for a therapist. Ward (2005) conducted a study on Black clients that had similar findings. The author found that Black Americans assess the race and ethnicity of their counselors

before anything else. Cabral and Smith (2011) conducted an analysis on the preferences, perceptions and outcomes of racial matching. Across 53 studies about treatment outcomes, they found there was no difference when clients were racially matched.

However, across 52 studies about preferences, they found that clients preferred a therapist of the same race. And across 82 studies of perceptions, they found that clients perceived therapists of the same race more positively.

Online Therapy Apps

Online therapy refers to mental health counseling that is offered digitally. This can be through online chatting, texting, or video call. Scholarship indicates that online therapy can mitigate the accessibility barriers to therapy such as cost and convenience. Research also suggests the online therapy can help individuals feel more comfortable with therapy (Kauer, Mangan & Sancı, 2014). In terms of cost, Aguilera and Muñoz (2011) conducted a usability study looking at the relationship between text therapy and accessibility to low income patients. Daily text messages asking patients about their mood were sent out. The authors argue that text therapy improves access to mental healthcare for low-income communities. The authors found that because text therapy is not as expensive as face-to-face treatment, clients can sustain treatment for a longer period. The authors note that text therapy can also be an effective way to easily monitor symptoms, connect with a clinician, and follow a treatment plan.

Hull and Mahan (2017) had similar findings. The authors evaluated the treatment outcomes of text therapy for adults over a 15-week treatment period. They looked at factors such as affordability, effectiveness, convenience, and wait times. The authors

found that individuals had high levels of satisfaction with text therapy in terms of convenience, effectiveness, and affordability. The authors note that analyses suggest that text therapy is 42.2% of the cost of traditional face-to-face services. Text therapy also reduces patient wait times. Nevertheless, the authors suggest that while text therapy is effective, it may reduce the alliance that therapists and clients can create in traditional settings. On the other hand, Cook and Doyle (2002) may not agree with this notion. The authors compared working alliance scores between a sample of face-to-face therapy clients and a small, predominantly female sample of online therapy clients. In their study, the authors found that there is no significant difference in the working alliance between online therapy and face-to-face therapy. The participants they studied felt a collaborative, bonding relationship with their online therapists.

In terms of convenience, Amichai-Hamburger, Klomek, Friedman, Zuckerman, and Shani-Sherman (2014) state that while online therapy can be more affordable for individuals, it also has other benefits. It eliminates the obstacles of distance and travel. It gives individuals who live in outlying areas the opportunity to have access to quality therapy; instead of having to choose from the limited options in their community. Cook and Doyle (2002) echo this sentiment. The authors conducted a study on online therapy which found that individuals who have mobility challenges or who live in an isolated region prefer online therapy options. They also found that individuals enjoyed the convenience and flexibility aspect of online therapy. Not only do clients not have to deal with travel time, but they also do not have to deal with paying for gas, finding parking, or having to be concerned with personal grooming. One participant in the study also noted

that they could communicate their feelings and thoughts when it is appropriate to them, as opposed to having to deal with scheduling issues.

Some findings indicate that stigma about seeking treatment may be reduced by online therapy. Rochlen, Zack and Speyer (2004) examine the strengths and limitations of online therapy. The authors express that clients who feel stigmatized by the counseling process may be more drawn to online therapy because they associate less shame with it than with being in the physical presence of a therapist. Bathje, Kim, Rau, Bassiouny, and Kim (2014) conducted a study that supports that sentiment. The authors examined face-to-face and online counseling among 228 Korean college students. They found that while face-to-face therapy was associated with self-stigma, online counselling was not. Kalia (2019) spoke with various experts about mobile therapy apps, including Esther Schmidt, the Children's Services Commissioning Lead of the National Health Service. Schmidt stated that online therapy services seem to appeal to Black individuals and other communities of color more than face-to-face therapy due to stigma about mental health.

In their study, Cook and Doyle (2002) find that online therapy can help clients feel freer to express what they are going through without feeling embarrassed, fearful, or judged by therapists. Participants expressed that for the first time, they felt like they could be completely honest with a therapist. Day and Schneider (2002) conducted a study comparing client participation in face-to-face, video, and audio therapy for 80 randomly chosen clients. They also found that clients participated more when they weren't with their therapists in real life. Factors such as trust, initiative, and openness improved. The authors suggest that distance allows individuals to feel safer. Finally, Reynolds, Stiles,

Bailer, and Hughes (2013) conducted a study with 30 therapists and 30 clients. The participants visited an online site and completed alliance and standard impact questionnaires for a minimum of six weeks. The authors suggest that therapists and clients find online therapy to be less threatening and more comfortable than face-to-face therapy.

While scholarship indicates that online therapy can create a more open environment, scholarship also indicates that online therapy is not for everybody. Some individuals need in-person therapy to deal with issues. Cook and Doyle (2002) found that therapists with clients that have more mental health symptoms rated their text therapy sessions as less comfortable. This suggests that online therapy is not suitable for individuals with more severe mental illnesses.

Conclusion

Scholarship showed that factors such as accessibility issues, cultural incompetence, mistrust in providers, and stigma can impede people of color from getting the treatment they need to cope with race-based-stress. To my knowledge, aside from this literature review, there is no research that specifically discusses connecting people of color to therapists of color through a digital application. However, because therapists of color and digital therapy apps can break down many of these barriers, there is an argument to be made that creating an application that connects people of color to specialized therapists of color would be beneficial. Based on the information gathered in this literature review, such an application would need to have an educational feature, it

would need to enable clients to specify what they are looking for in a practitioner, and it would need to allow clients to call, message and video call their practitioners.

Choosing a Practitioner. Scholarship showed that there is a need for clients of color who can be matched with practitioners they can identify with (Sue et al., 2003). Thus, the application users will be able to pick a therapist by race/ethnicity, languages spoken, and gender. They will also be able to specify their age for better matching. Clients will also be able to choose therapists who specialize in addressing racism and its effects.

Reducing Stigma Through Education. DeFreitas et al. (2018) suggest that stigma against mental health and mental health treatment is largely due to a lack of education about mental health. The authors state that while individuals should be educated in the subject, education should differ for different communities of color. Thus, the app will have a free feature that allows individuals to learn about mental health and mental health treatment from someone in their community before enrolling.

Message, Call or Video Call Sessions. Scholarship indicates that online therapy can reduce the barriers to therapy such as stigma, cost, and convenience. Thus, the app will offer different plans based on whether clients would like to message, call, or video call practitioners. The cost of these plans will be significantly cheaper than face-to-face therapy and will eliminate issues associated with long wait times, scheduling, distance, and mobility.

Chapter 2: Methodology

Methodology

The purpose of this study was to investigate user's feelings and attitudes about a telehealth platform that allows people of color to be treated by therapists of color. I conducted a study with people of color, which consisted of a mixture of both quantitative and qualitative research methods. I decided to use these two approaches because I recognized that each approach has a unique strength. A test that utilizes this mixed method produces measurable data with in-depth insight into participant's thinking.

Participants

In order to determine if an app that connects people of color to therapists of color would fill an unmet need, I conducted my study on participants of color. My sample needed to be representative of the individuals who could use the application. For this reason, I aimed to recruit Black individuals, Latinx individuals, Indigenous individuals, and Asian American individuals. As literature showed, these communities often lack access to therapeutic services. While I aimed for 10 participants, I was able to test nine individuals in total.

Table 1

A Table Showcasing Participants Racial Demographics

Participant #	Identified Race
1	Black
2	Black

3	South Asian
4	Latino
5	Latino
6	Black
7	Latino
8	Multiracial
9	East Asian

Of these nine, three identified as Black, two identified as Asian, three identified as Latino, and one identified as multiracial. Despite recruitment efforts, I was unable to successfully recruit participants who identify as Indigenous. My aim was to conduct the study on at least two individuals from the racial groups named. This was to ensure that the data collected reflected the possible diversity of thought between individuals of the same racial group. One person cannot speak for an entire community, however by obtaining an additional perspective from an individual in the same community, the data becomes more dependable. These individuals were recruited through social networking platforms such as Facebook and LinkedIn.

Study Design

For the quantitative approach, an A/B test was conducted. According to Optimizely's article "A/B Testing", (n.d.), A/B testing enables researchers to evaluate two variants of a product in order to determine which version is more effective. For my study, I had participants complete a set of tasks on Talkspace, which is an online therapy platform. I then had participants complete the same tasks on Allay, which is the platform

I designed. Allay is designed to be an online therapy platform that enables participants of people of color to have therapy with therapists of color. Every participant used Talkspace first and then Allay, I did not alternate the order between the tests. In terms of the qualitative approach, participants were interviewed on their experiences with each platform. This enabled me to determine their in-depth thoughts about the platforms they interacted with.

In this study the dependent variables were the opinions of the participants and the independent variables were the online therapy platforms. While the participants remained the same, the online therapy platforms differed. The insights obtained from both the A/B test and the pre and post questionnaires helped me measure people’s opinions about their experience with a platform like Allay. Additionally, Allay was iteratively developed and user-tested. Thus, the Allay platform was altered each time participants gave similar or eye-opening feedback. The platform went through five iterations. All five iterations can be viewed in the appendix.

Procedure

Before the study, users were asked to complete a consent form. The study for each participant took no more than 1 hour. The study began with a pre-questionnaire. During this phase, participants were asked some preliminary questions. These questions were as follows:

Table 2

A Table Showing the Pre-Questionnaire

Question #	Pre-Questionnaire
------------	-------------------

1	Tell me about yourself, how do you identify racially?
2	Do you know any apps that connect people of color to specialized therapists currently? If yes, what are they?
3	Do you think an app that connects people of color to therapists would be helpful? If yes, how so?

Participants were then asked to complete the A/B test. The test consisted of completing the same task for each of the different platforms, Talkspace and Allay. As the A/B test was completed on my device, participants were not required to download, pay for, or subscribe to any application to complete any tasks. The tasks were as follows:

Table 3

A Table Showing the A/B Task Questions

Task #	Task Questions
1	Explore the homepage, what are your thoughts about it?
2	Click on the mental health blog/educational feature on the navigation menu. Let me know your thoughts about this page.
3	Fill out the therapist “match” questions. What are your thoughts about the questions?
4	Now that you’ve been matched with some therapists, is there a specific one you would like to connect with?
5	Review the different ways the platform lets you communicate with a therapist. What do you think of these options?

Below are images of the key pages that were tested on the two different platforms. The following images are from Talkspace. They include the homepage, the blog, the therapist match questions, the therapist results and the subscription plan.

Talkspace Screens

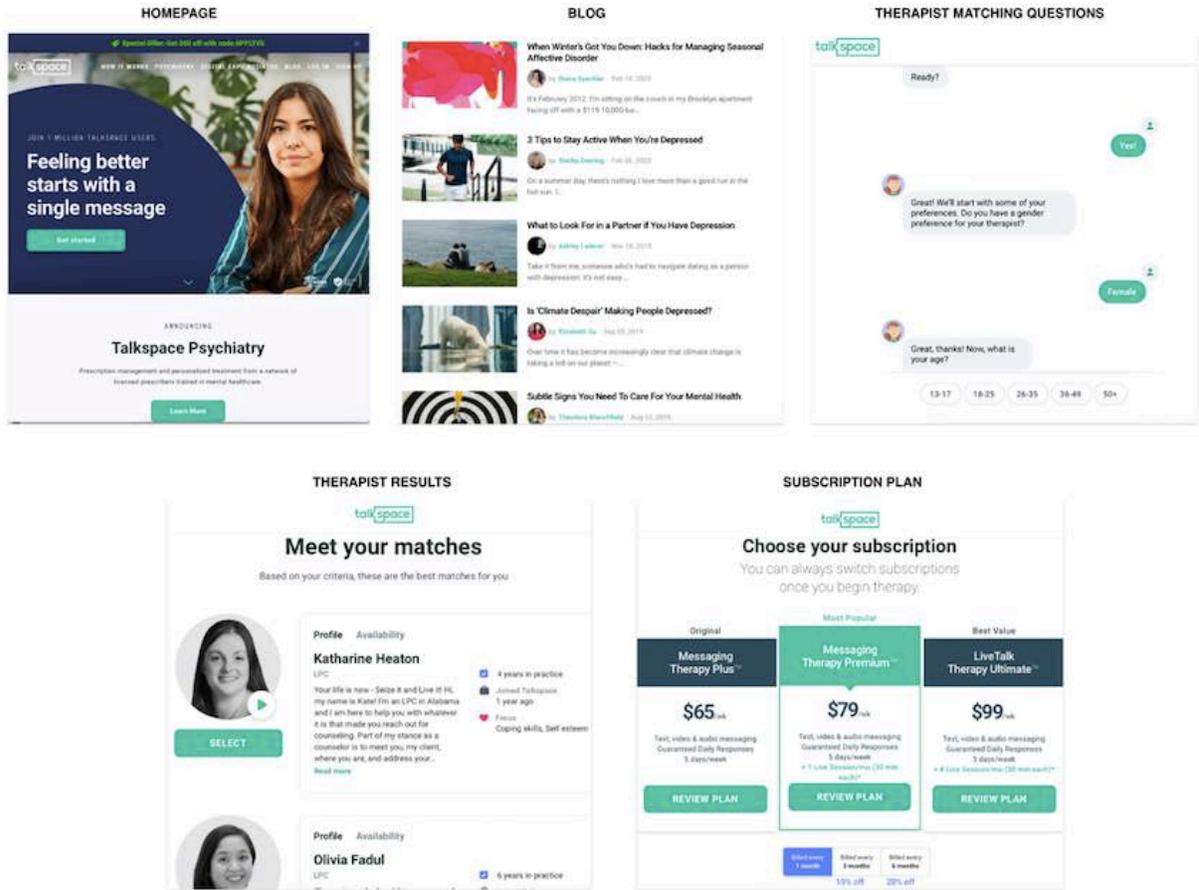


Figure 1. Talkspace Screens

When it came to designing the pages of Allay, I wanted to create something minimalistic, aesthetically pleasing, and inviting to people of color. Allay was originally called “Therapoci”, however during the testing I learned that this name was confusing, and I changed the name to Allay. In terms of inspiration, Talkspace inspired the therapist results page and the subscription plan page. Below is the very first version of Allay.

Allay Screens Iteration #1

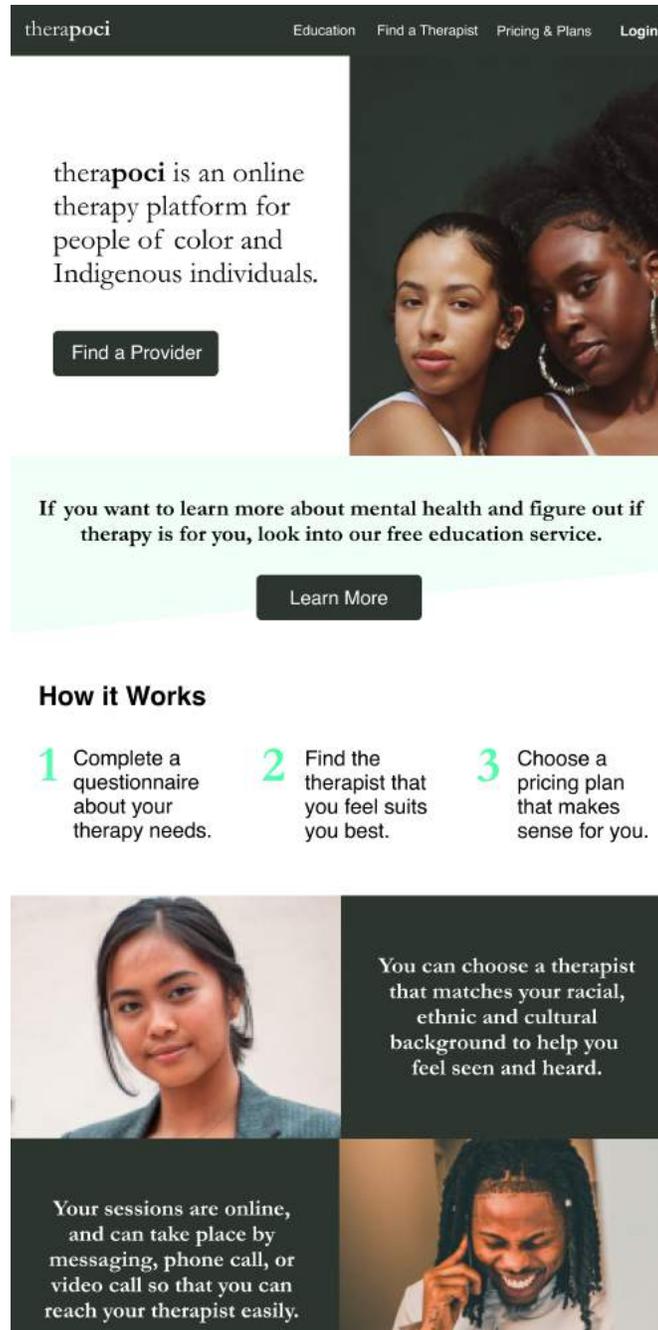


Figure 2. Iteration #1 of Allay Homepage

therapoci
Education
Find a Therapist
Pricing & Plans
Login

Education



All Lessons (20)

- What Is Mental Health?** ●
Lesson time: 10:00 mins
- POCI and Mental Health**
Lesson time: 10:00 mins
- Racism and Mental Health**
Lesson time: 11:00 mins
- Why Therapy is Important**
Lesson time: 10:00 mins
- What Is Therapy Like?**
Lesson time: 08:00 mins
- My Family Doesn't Agree With Therapy**
Lesson time: 12:00 mins

What Is Mental Health?

Mental health includes our emotional, psychological, and social well-being. It affects how we think, feel, and act. It also helps determine how we handle stress, relate to others, and make choices. Mental health is important at every stage of life, from childhood and adolescence through adulthood. Over the course of your life, if you experience mental health issues your thinking and mood can be affected.

Things to Remember

- Mental health is just as important as physical health
- Mental health affects how we think, feel and act
- Mental health shows up differently for everyone
- Mental health is really about your wellbeing

therapoci

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Figure 3. Iteration #1 of Allay Education Videos

therapoci Education **Find a Therapist** Pricing & Plans Login

Find a therapist

Answering these questions will help us match you with the most suitable therapist for you.

1 — 2 — 3

What race/ethnicity would you like your therapist to be? Select below.

- Asian
- Black
- Indigenous
- Latino
- Pacific Islander
- No preference
- Other _____

Would you like to work with a therapist who also specializes in issues related to race, culture and ethnicity?

- Yes
- Not at this time

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Figure 4. Iteration #1 of Allay Therapist Matching Form

therapoci Education **Find a Therapist** Pricing & Plans Login

Find a therapist

Answering these questions will help us match you with the most suitable therapist for you.

✓ — 2 — 3

Do you have a gender preference for your therapist? Select below.

- Female
- Male
- Transgender Male
- Transgender Female
- Gender Queer
- Gender Variant
- Other _____

What language would you like your therapist to speak? Select below.

English ▼

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Figure 5. Iteration #1 of Allay Therapist Matching Form

therapoci Education **Find a Therapist** Pricing & Plans Login

Find a therapist

Answering these questions will help us match you with the most suitable therapist for you.

✓ — ✓ — 3

How old are you? This will help us better match you with a therapist.

- 18-24
- 25-34
- 35-44
- 45-60
- 60+

What state do you live in? We want to match you with a therapist who is licensed in your area.

Alabama ▼

Find a Therapist

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Figure 6. Iteration #1 of Allay Therapist Matching Form

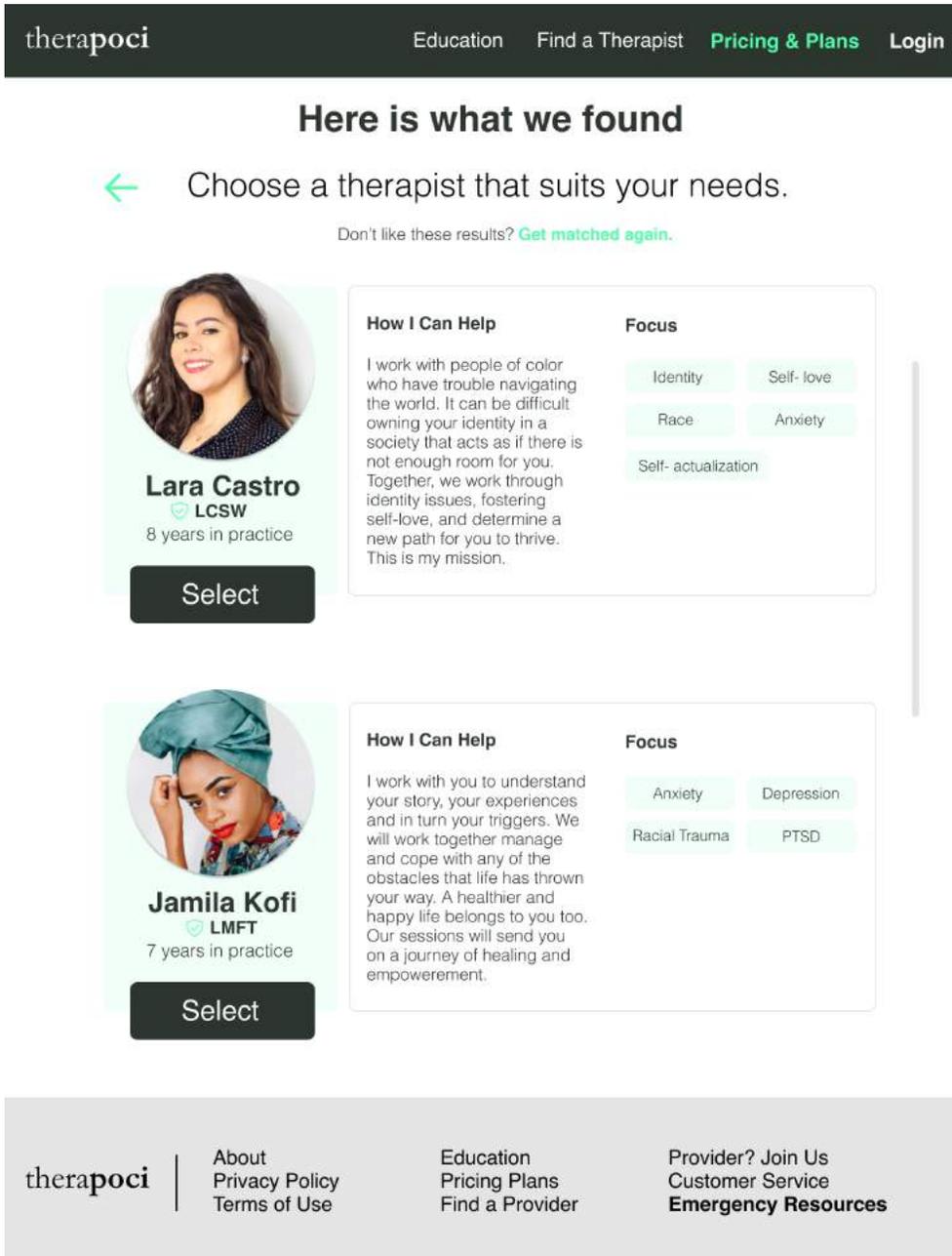


Figure 7. Iteration #1 of Allay Therapist Results

therapoci Education Find a Therapist Pricing & Plans Login

Pricing & Plans

Choose a plan that makes sense for you.

Messaging	Messaging and Phone Call	Messaging and Video Call
\$35 /wk	\$55 /wk	\$75 /wk
Text, audio and video messaging 5 days/week	Text, audio and video messaging, 5 days/week 1 phone call/month	Text, audio and video messaging, 5 days/week 1 video call/month

* You can schedule sessions every week of the month or on specific weeks of the month.

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Figure 8. Iteration #1 of Allay Subscription Plan

Finally, participants were asked a post-questionnaire to get an idea of their thoughts about both platforms. The questions were as follows:

Table 4

A Table Showing the Post-Questionnaire

Question #	Post-Questionnaire
1	How would you describe your experience with the app?
2	What did you like the most about using the app?
3	What did you like the least about using the app?
4	On a scale from 1 to 5 (1=not at all likely, 5=very likely), how likely are you to recommend the app to a friend?

Data Collection

Data for both the quantitative and qualitative parts of the study were collected through audio recording and note taking. Each participant was assigned a number. This number was used for their recording and for the notes I took. Data was stored this way in order to ensure that recordings are matched with the notes. For the pre-test, participant's responses were recorded using an audio recorder. For the A/B test, any comments they made were being recorded. Significant observations during the A/B test were also noted down on paper. In terms of the post-test questions, participant's responses were recorded using an audio recorder. After collecting all of this data, the audio recordings were transcribed, and the recordings themselves were destroyed for privacy reasons.

Chapter 3: Results

Results

The findings of the A/B test between Talkspace and Allay were intriguing. The key areas of comparison were the pre and post questionnaires, initial impressions of the platforms, the educational features (blog/videos), the therapist matching process and the subscription plans.

In terms of the pre-questionnaire, the results were almost homogenous. When asked if they knew of platforms that connected people of color to therapists of color, 8 out of 9 participants said they didn't know of any. Participant #1 stated that they had heard of such a platform but they didn't know it by name. Participant #4 expressed that while they didn't know of such a platform, they had been searching for one. All 9 participants stated that they would find an app that connected people of color to therapists of color to be helpful.

Initial Impressions of Talkspace

One of the initial things that stood out to participants about Talkspace was the clarity of the homepage. Participants expressed that it was easy to use, engaging and really well designed. While most participants expressed that there was some form of racial diversity on the landing page; they had to actively search for it. Participant #4 in particular did not feel that the Talkspace homepage spoke to them as a person of color. They expressed that there was a general lack of visual representation of people of color on the platform.

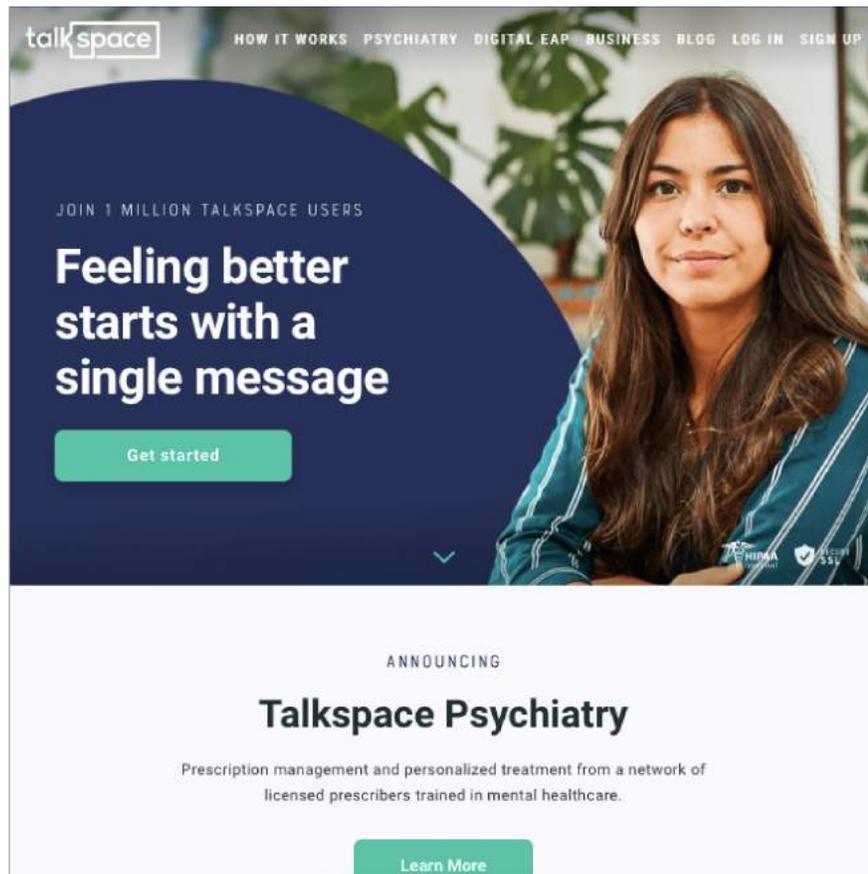


Figure 9. Talkspace homepage

Choosing a Practitioner on Talkspace

When it came to the therapist matching process there were mixed feelings. Two of the participants appreciated the fact that Talkspace uses a chatbot to match people with therapists. Participant #2 shared, “I like that you don’t need to talk to anyone.” However other participants felt that it was not personal enough. Participant #8 expressed that it felt strange that they couldn’t type their own answers. Participant #4 also had issues with the chatbot, stating, “I don’t like that it’s a chatbot. I feel like I’m talking to a robot.”

Participant #6 shared that the chatbot was difficult to use and did not feel accessible.

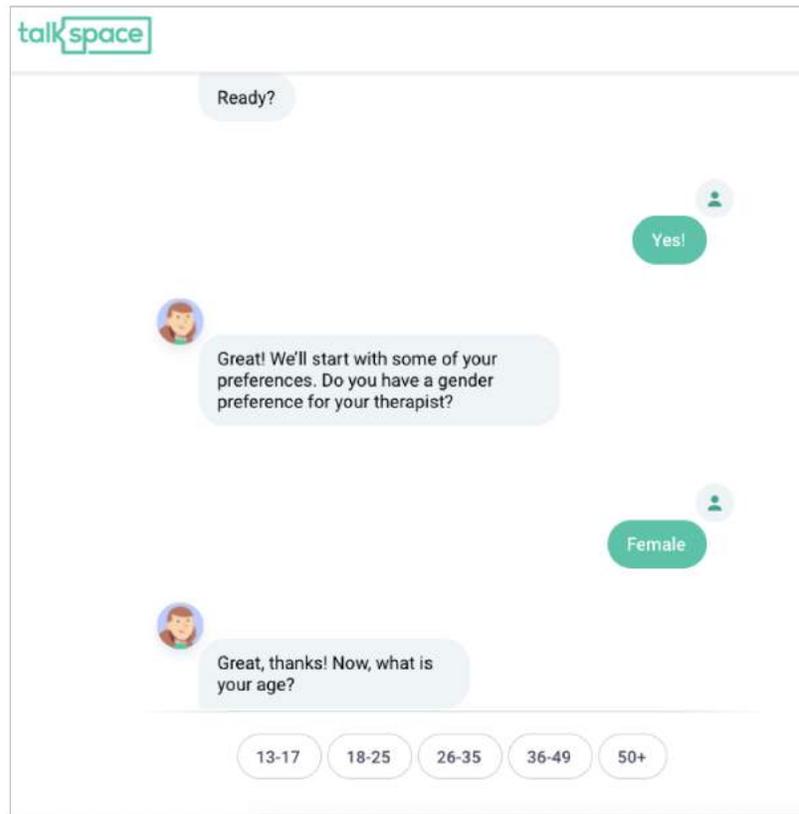


Figure 10. Talkspace Therapist Matching Chatbot

In terms of the actual questions, participants expressed that they were not as inclusive as they could have been, especially for people of color. Participant #3 asked, “it's only based on gender? So I feel like it should ask about race.” Participant #4 expressed, “I wish they asked me if I wanted a therapist of color.” Participant #5 echoed this sentiment stating, “the only thing they were worried about was my age and location and gender, which I don't think is investing in the client.” Finally, Participant #8 stated, “in terms of the preferences, you only asked me my age and gender. So that's not really a lot.”

Reducing Stigma Through Education on Talkspace

When it came to the blog, which is meant to help people feel more comfortable with therapy. When it came to the blog section, “Getting Started With Therapy”, most participants echoed that it was confusing to navigate. Participant #1 and Participant #8 explained that the blog felt more like a sales pitch. “It’s obvious that each post is meant to make you subscribe to Talkspace”, Participant #1 said.

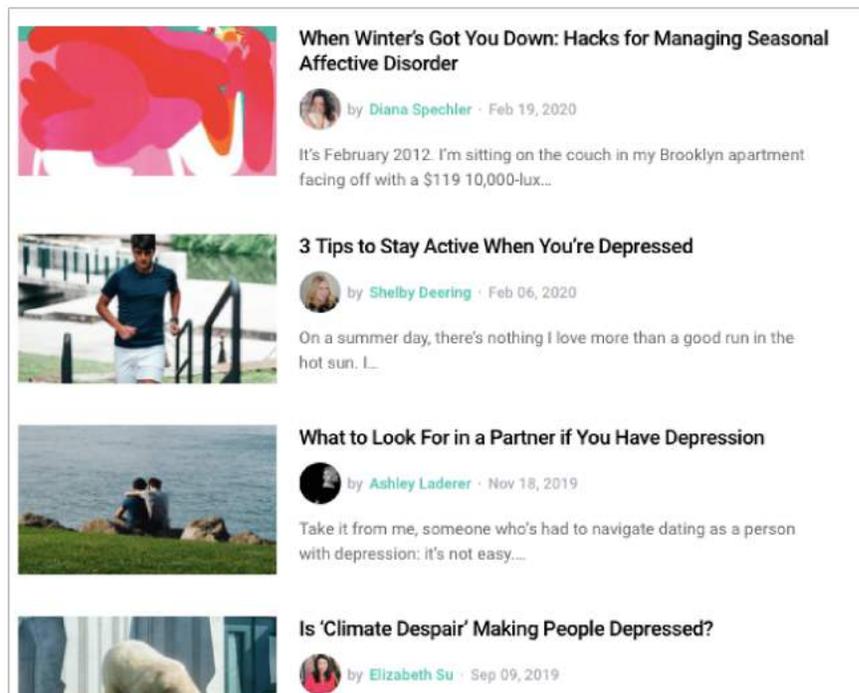


Figure 11. Talkspace Educational Blog

Participant #4 and Participant #5 expressed that the blog did not draw them in. In their own words, both explained there were too many paragraphs and it did not feel interactive. Participant #7 stated, “I don’t think I would read the blog”. Participant #6 shared that the language and terminology used in the blog was too complex for someone

who is just trying to get into therapy. Participant #6 felt that the terminology in the blog was too complex. They stated that they could see people going to the blog, seeing the terminology and saying, “I don't know if this will be for me”.

Message, Call or Video Call Sessions on Talkspace

When it came to the Talkspace plan, which includes messaging, calling and video calling feature; the responses varied. Participants #5 and #6 wished that video sessions were longer. Participant #8 was disappointed to read that the live video sessions were only available on android and iPhone, which meant users could not use it on their computer. In terms of the pricing of the plan, three participants felt that the pricing was too expensive. Participant #4 stated, “[the pricing plan] makes me wonder, who can access this?”

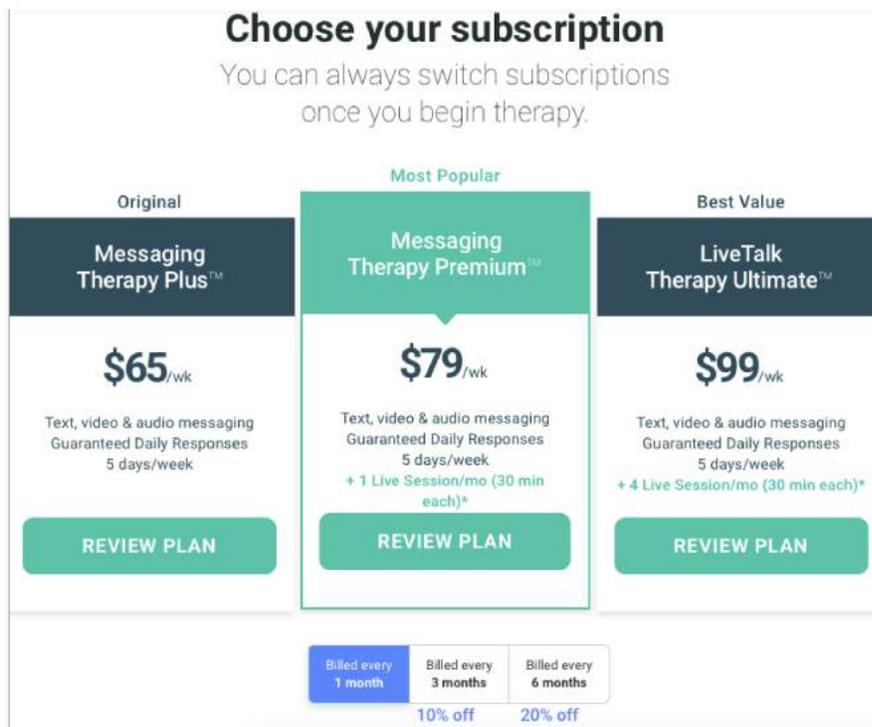


Figure 12. Talkspace Subscription Plan

Initial Impressions of Allay

One of the first things that stood out to participants about Allay initially was its previous name “Therapoci.” Most users did not like the name, or had difficulty pronouncing it. Due to this, I decided to change the name to Allay which means ease. Some participants also expressed difficulty understanding the homepage, explaining that they did not know where to look. I therefore redesigned the homepage for clarity. Aside from this, most participants expressed that they felt the homepage was more welcoming and made them feel seen as people of color, due to the imagery and value proposition.

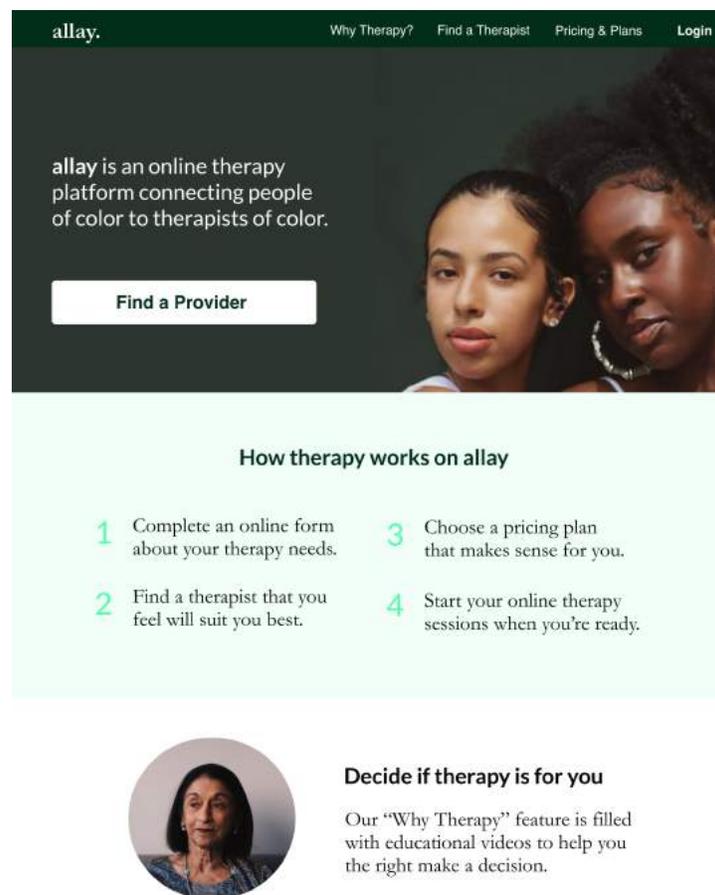


Figure 13. Final Iteration of Allay Homepage

Reducing Stigma Through Education on Allay

When it came to the educational videos, which are meant to help people feel more comfortable with therapy, all users appreciated the feature. The feature was initially housed under the menu label “Education”. The first two participants said that this was a confusing label. Participant #2 also suggested that subtitles be added to the videos, to help those who may be hard of hearing. Therefore, the term Education was changed to “Why Therapy?” and subtitles were added to the videos. Below is the final iteration.

The screenshot displays the Allay website's educational content. At the top, a dark green navigation bar contains the logo 'allay.' and links for 'Why Therapy?', 'Find a Therapist', 'Pricing & Plans', and 'Login'. The main heading is 'Why Therapy?'. Below this is a video player featuring a man with short dark hair and a beard, wearing a black t-shirt, with his hands raised in a gesture. A subtitle at the bottom of the video reads 'Mental health is really about our well-being'. To the right of the video is a list of lessons under the heading 'All Lessons (20)'. The lessons listed are: 'What Is Mental Health?' (10:00 mins), 'POC and Mental Health' (10:00 mins), 'Looking for a Therapist' (11:00 mins), 'Why Therapy is Important' (10:00 mins), 'What Is Therapy Like?' (08:00 mins), and 'My Family Doesn't Agree With Therapy' (12:00 mins). Below the video player, the section 'What Is Mental Health?' is followed by a paragraph defining mental health and its importance. Underneath, a 'Things to Remember' section lists four key points: mental health is as important as physical health, it affects how we think, feel, and act, it shows up differently for everyone, and it is really about your well-being. At the bottom, a light gray footer contains the 'allay.' logo and links for 'About Privacy Policy', 'Why Therapy? Pricing Plans', and 'Provider? Join Us Customer Service'.

Figure 14. Final Iteration of Allay Educational Videos

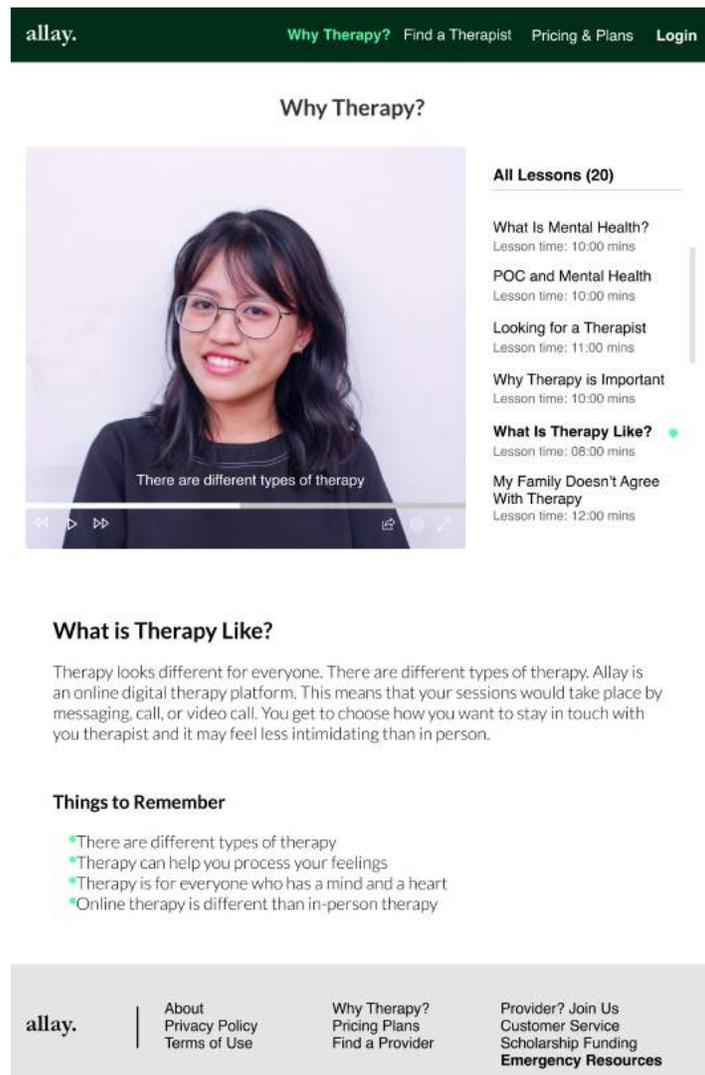


Figure 15. Final Iteration of Allay Educational Videos

After these changes were made, the remaining participants had no issues. Many expressed that they preferred it to Talkspace’s blog. Participant #6 shared, “You know, the other one with the blog, we had all of the academic terms. This is more basic”.

Participant #9 shared that it felt more like it was thinking of those who had never been to

therapy before. They also shared, “Okay, so I feel like visually seeing someone talking is better than just reading stuff.”

Choosing a Practitioner on Allay

When it came to the therapist matching process, participants felt that the form was simple, intuitive and professional. Participant #6 shared that it was a lot easier to use than Talkspace’s chatbot. Participant #3 shared that when it comes to something like mental health, they would want to fill out a form, because it feels more serious than answering a chatbot. Participant #9 thought the form was simple but not as interactive and engaging at the chatbot. Below is the final iteration.

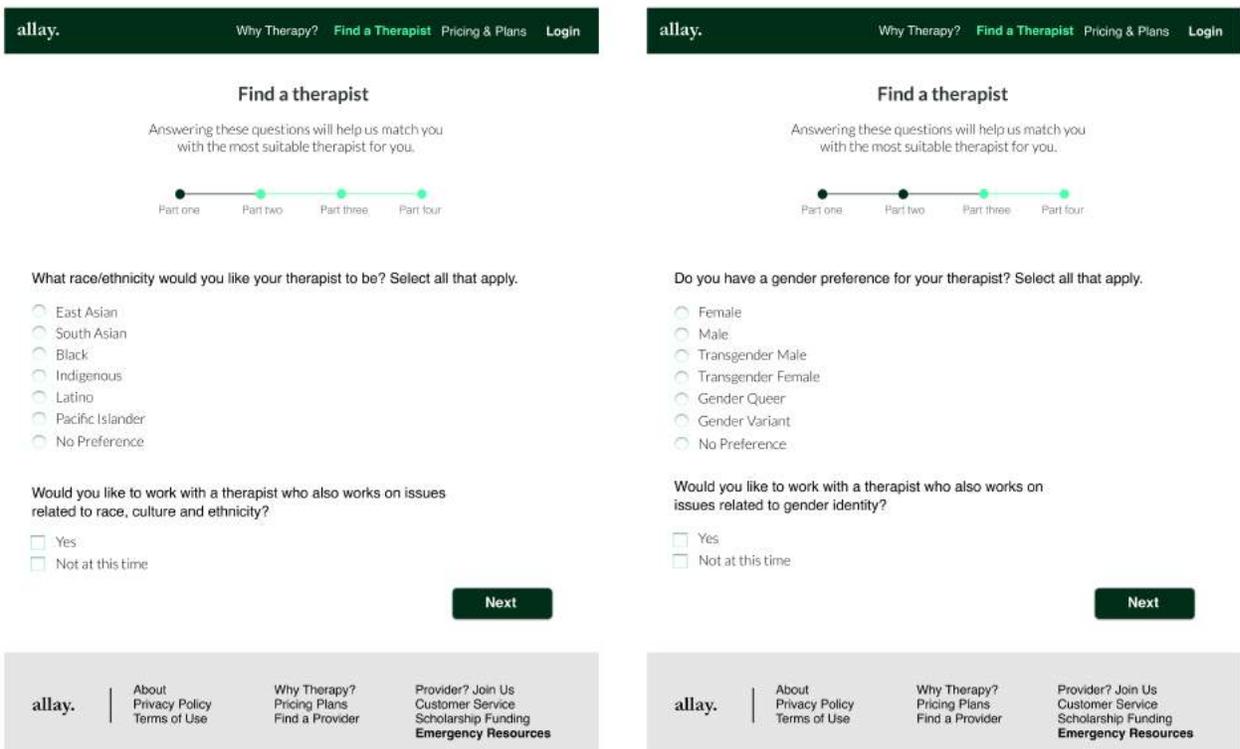


Figure 16. Final Iteration of Allay Therapist Matching Form

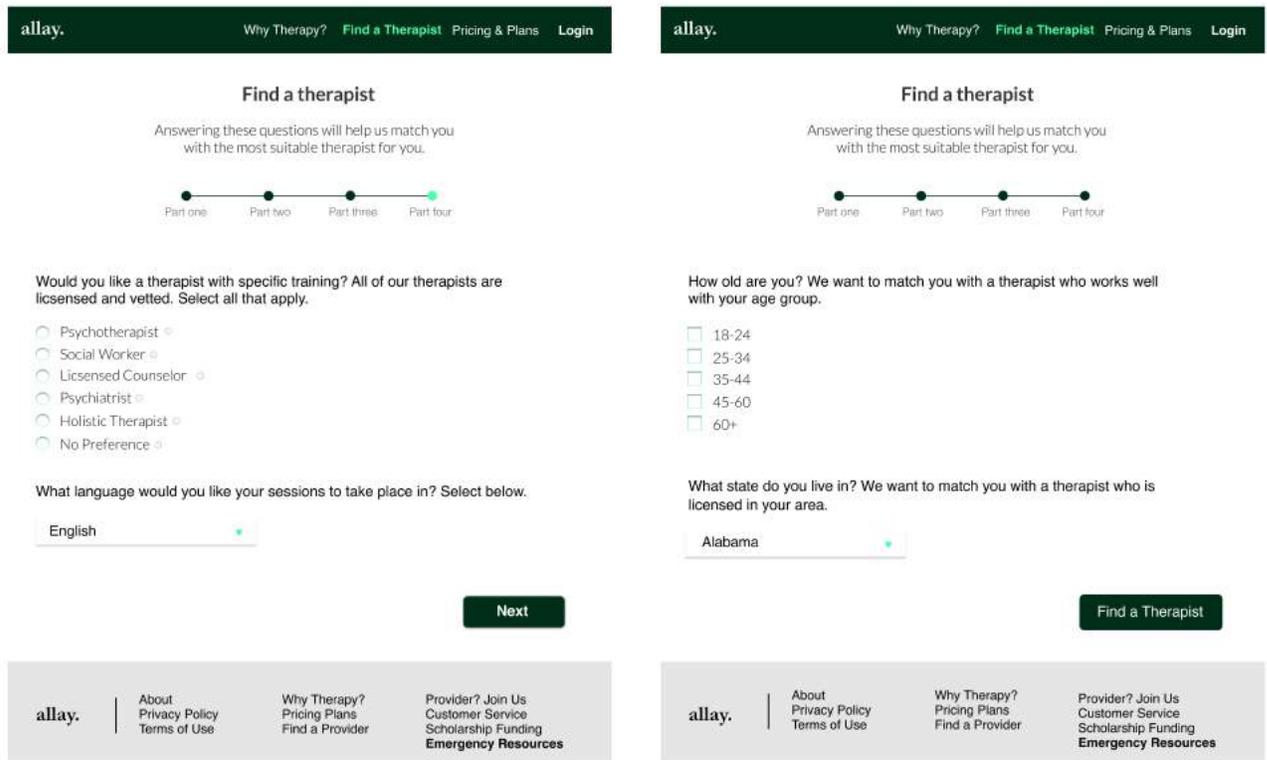


Figure 17. Final Iteration of Allay Therapist Matching Form

In terms of the actual questions, participants expressed that the questions in Allay felt culturally competent and inclusive. All participants liked that they could specialize the preferred race of the therapist, as well as request a therapist that discusses racial issues. However, participant #8 stated that when it came to selecting the race of a therapist, the term “Asian” was too broad. I therefore broke this racial category into South Asian and East Asian. Three participants also expressed a deep appreciation that they could ask for a therapist who spoke a specific language. Participant #4 stated that

therapy should give patients the “option to express themselves in a language that is more comfortable to them.”

Message, Call or Video Call Sessions on Allay

When it came to the Allay plan, which also includes messaging, calling and video calling feature, the responses varied. While most participants liked the plan and all it had to offer, some participants felt that it fell short. Participant #3 wished that patients could schedule calls as many times as they wanted, as opposed to only being able to have 4 calls per month in their plan. Participant #6 echoed this sentiment. Aside from this, all participants felt that the pricing itself was a lot more feasible. Below is the final iteration.

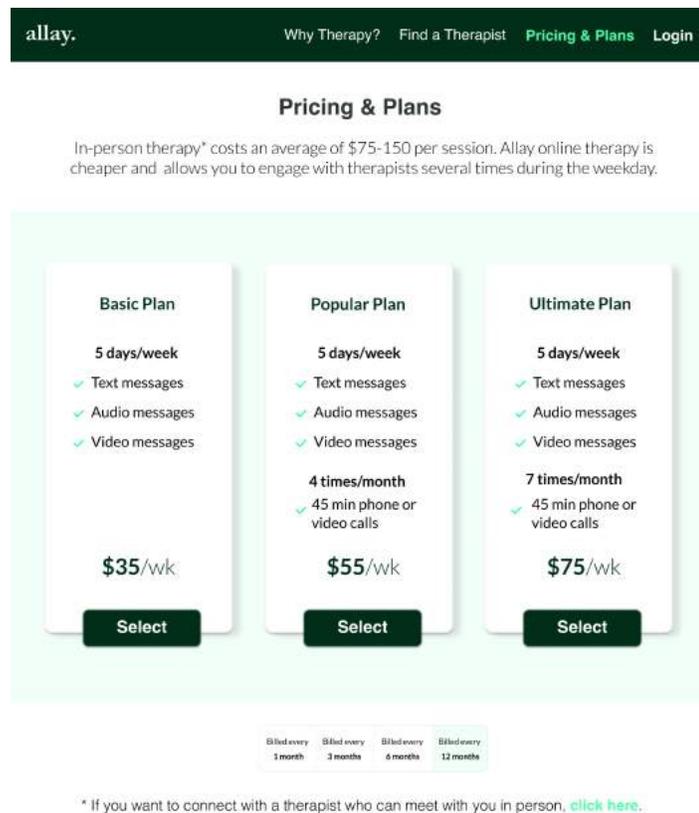


Figure 18. Final Iteration of Allay Subscription Plan

In terms of the post-questionnaire, each participant was asked how likely they were to recommend Talkspace and Allay to a friend. They were asked to choose a number between 1 and 5, 1 being the least likely, 5 being very likely. Below are the results.

Table 4

A Table Showing the Net Promoter Scores of Participants

Participant #	Promoter Score	
	Talkspace	Allay
1	3	3
2	3.5	4.5
3	5	5
4	4	5
5	4.5	5
6	3	4.5
7	4.5	5
8	3.5	4
9	3	5
Total Ratings	34	41
Mean Rating	3.777	4.555
Confidence Interval	95% CI [3.92, 4.23].	95% CI [4.11, 5.00]

I used these numbers to do some calculations that would help me determine the significance and reliability of these results. First, I calculated the mean recommendation score for each platform to see if there was a significant difference between the scores.

The mean recommendation score was 3.77 for Talkspace and 4.55 for Allay. In order to determine the mean, I did the following calculation:

$$\text{Mean Net Promoter Score} = \text{Total Ratings} \div 9$$

I then calculated the confidence intervals for each platform because calculating the mean alone only revealed a single value. However, calculating the confidence intervals revealed the range of likely values of the population mean. The confidence interval for Talkspace was 95% CI [3.92, 4.23]. The confidence interval for Allay was 95% CI [4.11, 5.00]. Thus, I can be confident that the population mean for Talkspace falls between [3.92, 4.23]. I can also be confident that the population mean for Allay falls between [4.11, 5.00]. In order to calculate the confidence interval, I did the following calculation:

$$\text{Confidence Interval} = \text{Standard Deviation} \div \sqrt{9}$$

Chapter 4: Discussion

Discussion

The results have fascinating implication on the future landscape of telehealth therapy. The findings showed that while the difference between the net promoter scores of the two platforms was not statistically significant, the participants have slightly more positive feelings and attitudes about a telehealth platform that specifically allows them to be paired with a therapist of color, than a telehealth platform that is more general. I believe this is due to three reasons: individuals were able to choose the racial or cultural components of their practitioner, they were able to watch educational videos about therapy, and the telehealth aspect made therapy feel more accessible.

Choosing a Practitioner

The results from the study indicated that the ability of participants to choose the race and specialization of their practitioner was invaluable. Each platform is designed to help individuals find the therapist that suits them best. However, the Talkspace chatbot is not as specific as the Allay form. While Talkspace asked participants questions about their preferred gender of a therapist, Allay asked participants questions about their preferred race and gender of their therapist, it asked participants if they would want a therapist who specializes in racial issues and gender issues, and it asked participants if they would like a therapist who speaks a specific language.

Participant #5, who identifies as Latino, told me, “I always get paired up with someone who doesn't look like me... I had one opportunity to be face to face with a man

who was Latino. I instantly felt comfortable, like I was talking to someone in my family.” Participant #7 shared that for them, when it comes to finding the right therapist, identity is more important than experience. “For therapy, I think it's more important to relate”, they said. This echoes the research I examined. Meyer and Zane (2013) conducted a study, which found that people of color feel that it is significantly more important for their provider to be racially matched than white people do. Ward (2005) also conducted a similar study, which found that Black Americans assess the race and ethnicity of their counselors before anything else.

In my study, participants also appreciated the fact that they could opt in to work with a therapist who they discuss race-based issues with. When discussing racial microaggressions, Participant #3 shared that a white therapist “might not get it because they don't experience it.” Participant #6 stated that their friends who had tried therapists of other races have been disappointed, stating, “some [friends] have tried therapists of another race, these are African American friends, and have not been happy.” These sentiments echo research done by Sue et al. (2003). The authors explain that because traditional mental health care is often inconsiderate of people of color, individuals emerge feeling invalidated and oppressed. Moving forward, telehealth platforms should consider giving individuals the opportunity to specify the demographic information of their desired therapist.

Reducing Stigma Through Education

The results from the study indicated that the ability of participants to learn about therapy in an engaging and accessible manner was critical. The educational feature on

each platform is designed to help participants feel more comfortable with the idea of mental health and therapy. Talkspace has a blog with a section titled “Getting Started With Therapy” with articles about therapy-related subjects that people can read to learn more. Allay has a “Why Therapy?” section which consists of videos where people of color who are experts in the field talk about mental illness, therapy, and the importance of therapy for people of color.

When it came to Talkspace, many participants felt that the blog was hard to get into and engage with due to a combination of the design, the topics covered, and the terminology used. Participant #9 expressed that it felt like it was more of a blog for those who were familiar with therapy, which alienates those who are not. However, participants shared that they felt that the Allay videos were interactive, simple to understand for someone who knows nothing about therapy, and relevant. Participant #9 expressed that the subjects covered by the Allay videos made them feel like the platform was truly invested in them. As they read through the topics covered in the video, they showed enthusiasm at the videos that covered issues related to being a person of color in therapy.

The results I obtained indicate that perhaps a blog is not the most effective way to help someone with stigma about therapy feel comfortable with it. This is significant because in a study conducted by DeFreitas et al. (2018), the authors share that education is one of the main ways to reduce stigma of mental illness in communities of color. In order to bridge the gap between people of color and therapy, it may be important for platforms to be more intentional about how they educate their audience about behavioral

health. Moving forward, telehealth platforms should consider incorporating more creative and intimate ways to reduce the stigma around mental illness and therapy.

Message, Call, or Video Call sessions

The response around the messaging, video and call plans were mixed. All participants expressed that online therapy is a lot cheaper and would make it easier to contact a therapist, which mirrors the sentiments in the research I found. Hull and Mahan (2017) evaluated the treatment outcomes of text therapy for adults over a 15-week treatment period and found that individuals had high levels of satisfaction with text therapy in terms of convenience, effectiveness, and affordability.

However, four out of the nine participants stated that they would prefer in person therapy. This is because they felt that telehealth therapy made the experience less personal. Participant #6 explained that they felt in-person therapy was more effective because the therapist gets to see the clients' mannerisms and reactions. Clients can't hide how they are really doing or feeling. Participant #8 expressed that for those who don't like to always be on their phones, online therapy is not a great option. This illustrates that while online therapy may be accessible, it is not necessarily the preferred mode of therapy for all individuals.

However, we are currently experiencing a global pandemic due to Coronavirus. This has undoubtedly increased the demand for online therapy. In the article "Coronavirus (COVID-19)" (n.d.), the Center for Disease Control and Prevention's (CDC) states that COVID-19 is a highly infectious disease. Individuals can be infected with the disease by coming into close contact (6 feet) with another person. Due to this,

social distancing practices have been issued. In the article “Social Distancing, Quarantine, and Isolation” (n.d.), the CDC explains that social distancing involves limiting close contact with people outside one’s household, staying at home, and working from home. Thus, several practices, businesses, organizations, and companies have had to shut down their physical offices and conduct work remotely. Travers (2020) describes how with mandatory confinements, therapists are now forced to move their practices online.

Evaluation of the Study

The results indicate that creating an intentional mental telehealth platform for people of color can reduce barriers to therapy and create a space where individuals feel more comfortable discussing issues about race. However, there is still the question as to whether or not online therapy is a preferred mode of therapy. Almost half of the participants stated that they would prefer to speak to a therapist face to face. Testing on a larger sample of participants would enable me to get a more reliable answer. There are limitations to testing a small sample group, as this means that the reliability of the results can be questioned. With more financial resources to pay participants for their time and effort, more people would have been tested.

It is also important to note that I was unable to test individuals who identify as Indigenous. I intended to test individuals who identified as Black, Asian, Latinx, and Indigenous. While I was successful in recruiting individuals from the other racial groups and someone who identifies as Multi-racial, I was not able to speak to an Indigenous

person. Ultimately, this is an important viewpoint to have. In order to obtain this perspective, more testing would need to be done.

Conducting an A/B test was a helpful way to see which way people of color would sway if they had the choice between the two platforms. Additionally, conducting an iterative usability test for Allay was extremely eye opening. Each time I received important feedback from participants, I made changes to the design and tested the next iteration of the design on new participants. Each iteration enabled me to reduce the number of user experience issues that came up. Testing this way allows me to trust the validity of the platform as a whole.

However there was a limitation to the A/B testing. Every participant used Talkspace first and then Allay, I did not alternate the testing order. Not alternating the order could have affected participants' results. This is called order effects. Order effects are the differences in participants' responses due to the order in which material is presented to them (iResearchnet, 2017). For example, in a test with two conditions A and B, factors such as fatigue or boredom can impact how participants respond to condition B. In the future, when it comes to A/B testing, I will alternate by ensuring half of the participants receive condition A first, and that the other half receive condition B first.

Chapter 5: Conclusion

Conclusion

The purpose of this study was to investigate user's feelings and attitudes about a telehealth platform that allows people of color to be treated by therapists of color. Scholarship showed that accessibility issues, cultural incompetence, mistrust in providers, and stigma can impede people of color from getting the treatment they need. Thus, Allay was designed with the intention of bridging the gap between people of color and therapy. The results obtained indicate that while the difference between the net promoter scores of the two platforms was not statistically significant, the participants had overwhelmingly positive feelings about a mental telehealth platform that centers people of color and their experiences.

I designed Allay to enable individuals to specify what they are looking for in a practitioner, with the aim of improving issues around trust and cultural incompetence. I also designed it to have educational videos about therapy, with the aim of reducing stigma around seeking treatment for mental illness. Finally, I designed it to allow individuals to have their sessions via text, call, and video, with the aim to reduce accessibility issues associated with affordability, transportation and wait times.

In terms of choosing a practitioner, the questions were culturally competent. Participants could choose race, they could choose a therapist who also specialized in racial issues, they could choose what language they preferred their therapist to speak. They were also able to choose gender, and a therapist who also specialized in gender and

sexuality issues. I believe that these elements made a significant role in making participants feel seen whilst using the platform.

In terms of the educational videos, scholarship showed that a large part of the stigma around mental health and therapy is a lack of education around it. Thus, having simple and interactive videos that answer questions such as “What is therapy?” “Why is Therapy Important?” and “POC and Mental Health?” is important. I also designed the platform so that the speakers in the video are also people of color. I believe that this type of intentionality helped participants feel engaged.

In terms of a telehealth platform, 44% of participants stated that they would prefer in person therapy. This indicates that while online therapy increases access, may not necessarily encourage people of color to seek help. More research would need to be done into the effectiveness of online therapy for people of color. However, a pandemic such as COVID-19 has shifted the therapy experience from a physical one to a virtual one.

This research illustrates that there is a need for the field of psychology to rethink how to reduce barriers for people of color who need access to therapy. In truth, more work needs to be done to ensure that clients of color feel comfortable to seek out and stay in therapy. Beyond lessons on cultural competence, practitioners need to begin examining how to assess and respond to racialized experiences, they need to rethink how to reduce stigma about mental illness in communities of color, and they need to consider how online therapy may be a more accessible form of therapy, especially with COVID-19. As the wellness industry continues to boom and online therapy platforms continue to

emerge, there is an argument to be made that there is room to create platforms that cater to communities of color in particular.

References

- A/B Testing. (n.d.) Retrieved from <https://www.optimizely.com/optimization-glossary/ab-testing/>
- Aguilera, A., & Muñoz, R. F. (2011). Text messaging as an adjunct to CBT in low-income populations: A usability and feasibility pilot study. *Professional Psychology: Research and Practice, 42*(6), 472–478. <https://doi.org/10.1037/a0025499>
- Amichai-Hamburger, Y., Klomek, A. B., Friedman, D., Zuckerman, O., & Shani-Sherman, T. (2014). The future of online therapy. *Computers in Human Behavior, 41*, 288–294. <https://doi.org/10.1016/j.chb.2014.09.016>
- Ammar Kalia. (2019, March 27). Appy day: could we fix our mental health on our phone? | Ammar Kalia. Retrieved November 3, 2019, from The Guardian website: <https://www.theguardian.com/world/2019/mar/27/appy-day-fix-mental-health-phone-global-crisis-solutions>
- Bathje, G. J., Kim, E., Rau, E., Bassiouny, M. A., & Kim, T. (2014). Attitudes toward Face-to-Face and Online Counseling: Roles of Self-Concealment, Openness to Experience, Loss of Face, Stigma, and Disclosure Expectations among Korean College Students. *International Journal for the Advancement of Counselling, 36*(4), 408–422. <https://doi.org/10.1007/s10447-014-9215-2>
- Betancourt, J., Green, A., & Carrillo, J. (2002). *Cultural Competence in Healthcare: Emerging Frameworks and Practical Approaches*. Retrieved from The Commonwealth Fund website: <https://www.commonwealthfund.org/publications/fund-reports/2002/oct/cultural-competence-health-care-emerging-frameworks-and>
- Bhugra, D., & Ayonrinde, O. (2001). Racism, racial life events and mental ill health. *Advances in Psychiatric Treatment, 7*(5), 343–349. <https://doi.org/10.1192/apt.7.5.343>
- Byrne, P. (2000). Stigma of mental illness and ways of diminishing it. *Advances in Psychiatric Treatment, 6*(1), 65–72. <https://doi.org/10.1192/apt.6.1.65>
- Cabral, R. R., & Smith, T. B. (2011). Racial/ethnic matching of clients and therapists in mental health services: a meta-analytic review of preferences, perceptions, and outcomes. *Journal of Counseling Psychology, 58*(4), 537–554. <https://doi.org/10.1037/a0025266>
- Carter, R. T. (2007). Racism and Psychological and Emotional Injury. *The Counseling Psychologist, 35*(1), 13–105. <https://doi.org/10.1177/0011000006292033>
- Causadias, J. M., & Korous, K. M. (2019). Racial Discrimination in the United States: A National Health Crisis That Demands a National Health Solution. *Journal of Adolescent Health, 64*(2), 147–148. <https://doi.org/10.1016/j.jadohealth.2018.11.001>
- Chao, P. J., Steffen, J. J., & Heiby, E. M. (2012). The effects of working alliance and client-clinician ethnic match on recovery status. *Community Mental Health Journal, 48*(1), 91–97. <https://doi.org/10.1007/s10597-011-9423-8>

- Chavez-Dueñas, N. Y., Adames, H. Y., Perez-Chavez, J. G., & Salas, S. P. (2019). Healing ethno-racial trauma in Latinx immigrant communities: Cultivating hope, resistance, and action. Retrieved November 4, 2019, from undefined website: <https://www.semanticscholar.org/paper/Healing-ethno-racial-trauma-in-Latinx-immigrant-and-Chavez-Dueñas-Adames/be563cd1ab85b15a1880231b05bd4a15b924acb7>
- Centers for Disease Control and Prevention.(2020). Social Distancing, Quarantine, and Isolation. Retrieved from <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html>
- Centers for Disease Control and Prevention. (n.d.) Coronavirus Disease 2019 (COVID-19). Retrieved from <https://www.cdc.gov/coronavirus/2019-nCoV/index.html>
- Comas-Díaz, L., Hall, G. N., & Neville, H. A. (2019). Racial trauma: Theory, research, and healing: Introduction to the Special Issue. *American Psychologist, 74*(1), 1-5. <http://dx.doi.org/10.1037/amp0000442>
- Cook, J. E., & Doyle, C. (2002). Working Alliance in Online Therapy as Compared to Face-to-Face Therapy: Preliminary Results. *CyberPsychology & Behavior, 5*(2), 95–105. <https://doi.org/10.1089/109493102753770480>
- Day, S. X., & Schneider, P. L. (2002). Psychotherapy using distance technology: A comparison of face-to-face, video, and audio treatment. *Journal of Counseling Psychology, 49*(4), 499–503. <https://doi.org/10.1037/0022-0167.49.4.499>
- DeFreitas, S. C., Crone, T., DeLeon, M., & Ajayi, A. (2018). Perceived and Personal Mental Health Stigma in Latino and African American College Students. *Frontiers in Public Health, 6*(49). <https://doi.org/10.3389/fpubh.2018.00049>
- DuPont-Reyes, M. J., Villatoro, A. P., Phelan, J. C., Painter, K., & Link, B. G. (2019). Adolescent views of mental illness stigma: An intersectional lens. *The American Journal of Orthopsychiatry, 10.1037/ort0000425*. <https://doi.org/10.1037/ort0000425>
- Grandbois, D. (2005). Stigma of Mental Illness Among American Indian and Alaska Native Nations: Historical and Contemporary Perspectives. *Issues in Mental Health Nursing, 26*(10), 1001–1024. <https://doi.org/10.1080/01612840500280661>
- Guess, T. J. (2006). The Social Construction of Whiteness: Racism by Intent, Racism by Consequence. *Critical Sociology, 32*(4), 649–673. <https://doi.org/10.1163/156916306779155199>
- Hardy, K. V. (2013). Healing the Hidden Wounds of Racial Trauma. *Reclaiming Children and Youth, 22*(1), 24–28. Retrieved from <https://eric.ed.gov/?id=EJ1023873>
- Helms, J. E., Nicolas, G., & Green, C. E. (2012). Racism and ethnoviolence as trauma: Enhancing professional and research training. *Traumatology, 18*(1), 65–74. <https://doi.org/10.1177/1534765610396728>
- Hull, T. D., & Mahan, K. (2017). A Study of Asynchronous Mobile-Enabled SMS Text Psychotherapy. *Telemedicine Journal and E-Health : The Official Journal of the American Telemedicine Association, 23*(3), 240–247. <https://doi.org/10.1089/tmj.2016.0114>

- Kauer, S. D., Mangan, C., & Sanci, L. (2014). Do Online Mental Health Services Improve Help-Seeking for Young People? A Systematic Review. *Journal of Medical Internet Research*, *16*(3), e66. <https://doi.org/10.2196/jmir.3103>
- Kramer, E. J., Kwong, K., Lee, E., & Chung, H. (2002). Cultural factors influencing the mental health of Asian Americans. *The Western Journal of Medicine*, *176*(4), 227–231. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1071736/>
- Laungani, P. (2004). Counselling and therapy in a multi-cultural setting. *Counselling Psychology Quarterly*, *17*(2), 195–207. <https://doi.org/10.1080/09515070410001728262>
- Lawrence, J. (2000). The Indian Health Service and the Sterilization of Native American Women. *American Indian Quarterly*, *24*(3), 400–419. Retrieved from https://www.jstor.org/stable/1185911?mag=the-little-known-history-of-the-forced-sterilization-of-native-american-women&seq=1#page_scan_tab_contents
- Lawrence, K., & Keleher, T. (2004). *Chronic Disparity: Strong and Pervasive Evidence of Racial Inequalities POVERTY OUTCOMES Structural Racism*. Retrieved from <https://www.intergroupresources.com/rc/Definitions%20of%20Racism.pdf>
- Lawrence, K., Sutton, S., Kubisch, A., Susi, G., & Fulbright-Anderson, K. (2004). Structural Racism and Community Building. *Aspen Institute*. Retrieved from https://assets.aspeninstitute.org/content/uploads/files/content/docs/rcc/aspen_structural_racism2.pdf
- Maramba, G. G., & Hall, G. C. N. (2002). Meta-analyses of ethnic match as a predictor of dropout, utilization, and level of functioning. *Cultural Diversity & Ethnic Minority Psychology*, *8*(3), 290–297. <https://doi.org/10.1037/1099-9809.8.3.290>
- McGuire, T. G., & Miranda, J. G. (2008). New evidence regarding racial and ethnic disparities in mental health: policy implications. *Health Affairs*, *27*(2): 393–403. <https://doi.org/10.1377/hlthaff.27.2.393>
- McIntyre, C., Harris, M. G., Baxter, A. J., Leske, S., Diminic, S., Gone, J. P., ... Whiteford, H. (2017, August 4). Assessing service use for mental health by Indigenous populations in Australia, Canada, New Zealand and the United States of America: a rapid review of population surveys. *Health Research Policy and Systems*, *15*(1). <https://doi.org/10.1186/s12961-017-0233-5>
- Meyer, O. L., & Zane, N. (2013). The Influence of Race and Ethnicity in Clients Experienced of Mental Health Treatment. *Journal of Community Psychology*, *41*(7), 884–901. <https://doi.org/10.1002/jcop.21580>
- Norris, F. H., & Alegria, M. (2005). Mental health care for ethnic minority individuals and communities in the aftermath of disasters and mass violence. *CNS Spectrums*, *10*(2), 132–140. <https://doi.org/10.1017/s1092852900019477>
- Office of the Surgeon General (US, Center for Mental Health Services (US, & National Institute of Mental Health (US. (2001, August). Mental Health: Culture, Race, and Ethnicity. Retrieved from Nih.gov website: <https://www.ncbi.nlm.nih.gov/books/NBK44243/>

- Order Effects (SOCIAL PSYCHOLOGY) - iResearchNet. (2017, October 25). Retrieved from <http://psychology.iresearchnet.com/social-psychology/social-psychology-research-methods/order-effects/>
- Potapchuk M., Leiderman S., Bivens D., Major B. (2005) Flipping the Script: White Privilege and Community Building. MP Associates, Inc. and the Center for Assessment and Policy Development (CAPD). Retrieved from <https://www.racialequitytools.org/resourcefiles/potapchuk1.pdf>
- Powell, J. (2007). Structural Racism: Building Upon the Insights of John Calmore. *North Carolina Law Review*, 86, 791–815. Retrieved from North Carolina Law Review website:<https://scholarship.law.berkeley.edu/cgi/viewcontent.cgi?article=2637&context=facpubs>
- Pyke, K. D. (2010). What is Internalized Racial Oppression and Why Don't We Study It? Acknowledging Racism's Hidden Injuries. *Sociological Perspectives*, 53(4), 551–572. <https://doi.org/10.1525/sop.2010.53.4.551>
- Reynolds, D. J., Stiles, W. B., Bailer, A. J., & Hughes, M. R. (2013). Impact of Exchanges and Client–Therapist Alliance in Online-Text Psychotherapy. *Cyberpsychology, Behavior, and Social Networking*, 16(5), 370–377. <https://doi.org/10.1089/cyber.2012.0195>
- Rochlen, A. B., Zack, J. S., & Speyer, C. (2004). Online therapy: review of relevant definitions, debates, and current empirical support. *Journal of Clinical Psychology*, 60(3), 269–283. <https://doi.org/10.1002/jclp.10263>
- Rowan, K., McAlpine, D. D., & Blewett, L. A. (2013). Access And Cost Barriers To Mental Health Care, By Insurance Status, 1999–2010. *Health Affairs*, 32(10), 1723–1730. <https://doi.org/10.1377/hlthaff.2013.0133>
- Salter, P. S., Adams, G., & Perez, M. J. (2017). Racism in the Structure of Everyday Worlds: A Cultural-Psychological Perspective. *Current Directions in Psychological Science*, 27(3), 150–155. <https://doi.org/10.1177/0963721417724239>
- Sohn, H. (2016). Racial and Ethnic Disparities in Health Insurance Coverage: Dynamics of Gaining and Losing Coverage Over the Life-Course. *Population Research and Policy Review*, 36(2), 181–201. <https://doi.org/10.1007/s11113-016-9416-y>
- Sommers, S. R., & Norton, M. I. (2006). Lay Theories About White Racists: What Constitutes Racism (and What Doesn't). *Group Processes & Intergroup Relations*, 9(1), 117–138. <https://doi.org/10.1177/1368430206059881>
- Stevtaz, M. V. (2018). Racism and Its Harmful Effects on Nondominant Racial-Ethnic Youth and Youth-Serving Providers: A Call to Action for Organizational Change: The Society for Adolescent Health and Medicine. *The Journal of Adolescent Health : Official Publication of the Society for Adolescent Medicine*, 63(2), 257–261. <https://doi.org/10.1016/j.jadohealth.2018.06.003>
- Sue, D. W., Bucceri, J., Lin, A. I., Nadal, K. L., & Torino, G. C. (2007). Racial microaggressions and the Asian American experience. *Cultural Diversity and Ethnic Minority Psychology*, 13(1), 72–81. <https://doi.org/10.1037/1099-9809.13.1.72>

- Sue, D. W., Iwamasa, G. Y., Myers, L. J., Young, A., Obasi, E., Speight, S., ... Barcus, C. (2003). *Psychological Treatment of Ethnic Minority Populations Council of National Psychological Associations for the Advancement of Ethnic Minority Interests*. Retrieved from <https://www.apa.org/pi/oema/resources/brochures/treatment-minority.pdf>
- Suite, D. H., La Bril, R., Primm, A., & Harrison-Ross, P. (2007). Beyond misdiagnosis, misunderstanding and mistrust: relevance of the historical perspective in the medical and mental health treatment of people of color. *Journal of the National Medical Association, 99*(8), 879–885. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2574307/>
- Taylor, D., & Richards, D. (2019). Triple Jeopardy: Complexities of Racism, Sexism, and Ageism on the Experiences of Mental Health Stigma Among Young Canadian Black Women of Caribbean Descent. *Frontier Sociology*. <https://doi.org/10.3389/fsoc.2019.00043>
- Travers, M. (2020, March 24). Will COVID-19 Make Teletherapy the Rule, Not the Exception? Retrieved from <https://www.psychologytoday.com/us/blog/social-instincts/202003/will-covid-19-make-teletherapy-the-rule-not-the-exception>
- Ward, E. C. (2019). Keeping It Real: A Grounded Theory Study of African American Clients Engaging in Counseling at a Community Mental Health Agency. *Journal of Counseling Psychology, 52*(4), 471–481. Retrieved from <https://eric.ed.gov/?id=EJ734348>

Appendix A:IRB Consent Form

Whom to Contact about this study:

Principal Investigator: Jacquelyn Iyamah

Department: Interaction Design and Information Architecture

CONSENT FORM FOR PARTICIPATION IN RESEARCH ACTIVITIES**Connecting People of Color to Specialized Therapists**

This research study is for a master's thesis.

I. INTRODUCTION/PURPOSE:

I am being asked to participate in a research study. The purpose of this study is to determine if there is a need for an app that connects people of color to specialized therapists of color. I am being asked to volunteer because I identify as a person of color. My involvement in this study will begin when I agree to participate and will continue until I have finished the study. About ten persons will be invited to participate.

II. PROCEDURES:

As a participant in this study, I will not be required to download, pay for, or subscribe to any application to complete any tasks. I will be asked to complete the tasks on the researchers device.

I will first be asked to answer some pre-test interview questions to gain some background information about me.

I will then be asked to complete a set of tasks on two different online therapy apps to test the how usable and useful the applications are.

The tasks for the first app include:

- Exploring the homepage
- Take a look at the mental health blog on the app
- Fill out the therapist “match” questions
- Examining if there is a therapist I would like to connect with of my “matches”
- Determining how to get re-matched if I am unhappy with my choices
- Discussing how I feel about the different ways the app allows me to communicate with a therapist.

The tasks for the second app include:

- Exploring the homepage
- Take a look at the mental health education feature on the app

- Fill out the therapist “match” questions
- Examining if there is a therapist I would like to connect with of my “matches”
- Determining how to get re-matched if I am unhappy with my choices
- Discussing how I feel about the different ways the app allows me to communicate with a therapist.

Finally, I will be asked some post-test interview about my overall experience with the applications. My participation in this study will last for one hour and will be audio recorded.

III. RISKS AND BENEFITS:

My participation in this study does not involve any significant risks and I have been informed that my participation in this research will not benefit me personally, but the outcome of this study may benefit the community of color as a whole by highlighting the race-based therapeutic needs we may have.

IV. CONFIDENTIALITY:

Any information learned and collected from this study in which I might be identified will remain confidential and will be disclosed ONLY if I give permission. All information collected in this study will be stored in a password-protected folder on the investigators laptop. Any paper consent form will be stored in a physical folder in a private cabinet. Only the investigator and members of the research team will have access to these records. By signing this form, however, I allow the research study investigator to make my records available to the University of Baltimore Institutional Review Board (IRB) and regulatory agencies as required to do so by law. Consenting to participate in this research also indicates my agreement that all my personal information or biospecimens collected as part of the research, even if identifiers are removed, will not be used or distributed for future research studies.

Voice recordings will be used in the study. Once the audio is transcribed, the recordings will be destroyed.

Yes, I give permission to use my transcribed audio scientific publications or presentations.

No, I do not give permission to use my transcribed audio in scientific publications or presentations

V. COMPENSATION/COSTS:

My participation in this study will involve no cost to me. I will be paid for my participation in 10\$ cash. I will only be paid this amount upon completion of the study.

VI. CONTACTS AND QUESTIONS:

The principal investigator(s), Jacquelyn Iyamah has offered to and has answered any and all questions regarding my participation in this research study. If I have any further questions, I can contact Jacquelyn Iyamah at Jacquelyn.iyamah@ubalt.edu.

For questions about rights as a participant in this research study, contact the UB IRB Coordinator: 410-837-4057, irb@ubalt.edu.

VII. VOLUNTARY PARTICIPATION

I have been informed that my participation in this research study is voluntary and that I am free to withdraw or discontinue participation at any time.

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I will be given a copy of this consent form to keep.

VIII. SIGNATURE FOR CONSENT

The above-named investigator has answered my questions and I agree to be a research participant in this study. By signing this consent form, I am acknowledging that I am at least 18 years of age.

Participant's Name: _____ Date:

Participant's Signature: _____ Date:

Investigator's Signature: _____ Date:

Appendix B: Usability Script

Introduction

Thank you for coming to this usability testing. Today, I will be asking you to complete a number of tasks on two different online therapy apps. The purpose of this testing is to determine which app is better equipped to meet your race-based needs as a person of color. You are not required to download, pay for, or subscribe to any application in order to complete tasks. They will be asked to complete the tasks on my device.

Pre-Testing Questions

1. Tell me about yourself, how do you identify racially?
2. Do you know any apps that connect people of color to specialized therapists currently?
 - a. If yes, what are they?
3. Do you think an app that connects people of color to therapists would be helpful?
 - . If yes, how so?

Tasks for the Talkspace App

1. Explore the homepage, what are your thoughts about it? Does it speak to you as a person of color? Why/Why not.
**Here, I will want to determine if users feel like Talkspace's homepage speaks to people of color and makes them feel welcome.*
2. Click on the blog feature on the navigation menu and go to "Starting therapy". Do you think this is a helpful way to educate/ reduce stigma?
**Here, I will want to determine if users feel like Talkspace's blog is a useful way to educate people of color about mental illness and reduce stigma.*
3. Fill out the therapist "match" questions
**These are questions that help the app find therapists that would work well with a user. Here, I will be observing how easy it is for users to find a therapist that meets their needs.*
4. Now that you've been matched with some therapists, is there a specific one you would like to connect with?
**Here, I will be trying to get a sense of if users feel like the therapist bio's provide enough information for them to make an informed decision.*
5. Let's say you didn't like the options that came up, how would you go about getting re-matched?

**Here, I will be determining how easy it is for users to get a new set of therapist “matches”, if they are unhappy with the options that came up.*

6. Review the different ways Talkspace lets you communicate with a therapist. What do you think of these options?

**Here, I will be trying to see if users feel like texting, audio, and video calling are adequate options to communicate with a therapist.*

Tasks for Allay

1. Explore the homepage, what are your thoughts about it?

**Here, I will want to determine if users feel like the homepage of my app speaks to people of color and makes them feel welcome.*

2. Click on the education feature menu navigation. Let me know your thoughts about this page.

**Stigma of mental health is a big issue for communities of color. However, scholarship shows that education can eliminate this stigma. My app will have a free educational section where users can learn about mental health from people in their communities. Here, I want to determine if users feel like the free educational feature is helpful.*

3. Fill out the therapist “match” questions

**Here, I will be observing how easy it is for users to find a therapist that meets their needs.*

4. Now that you’ve been matched with some therapists, is there a specific one you would like to connect with?

**Here, I will be trying to get a sense of if users feel like the therapist bio’s provide enough information for them to make an informed decision.*

5. Let’s say you didn’t like the options that came up, how would you go about getting re-matched?

**Here, I will be determining how easy it is for users to get a new set of therapist “matches”, if they are unhappy with the options that came up.*

6. Review the different communication options you can have with therapists. What do you think of them?

**Here, I will be trying to see if users feel like texting, audio, and video calling are adequate options to communicate with a therapist.*

Appendix C: Alloy Iterations

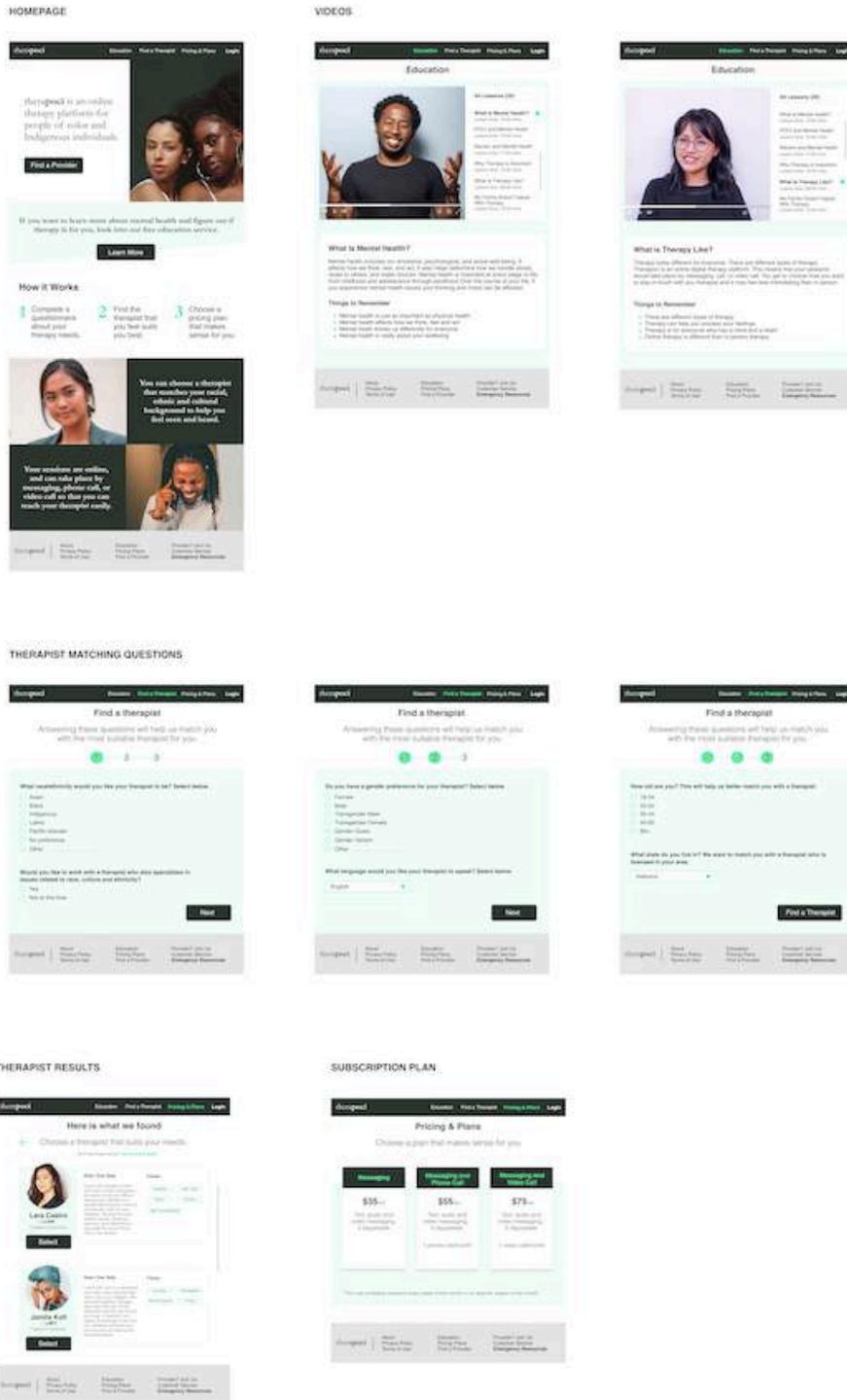


Figure 19. Alloy Iteration #1

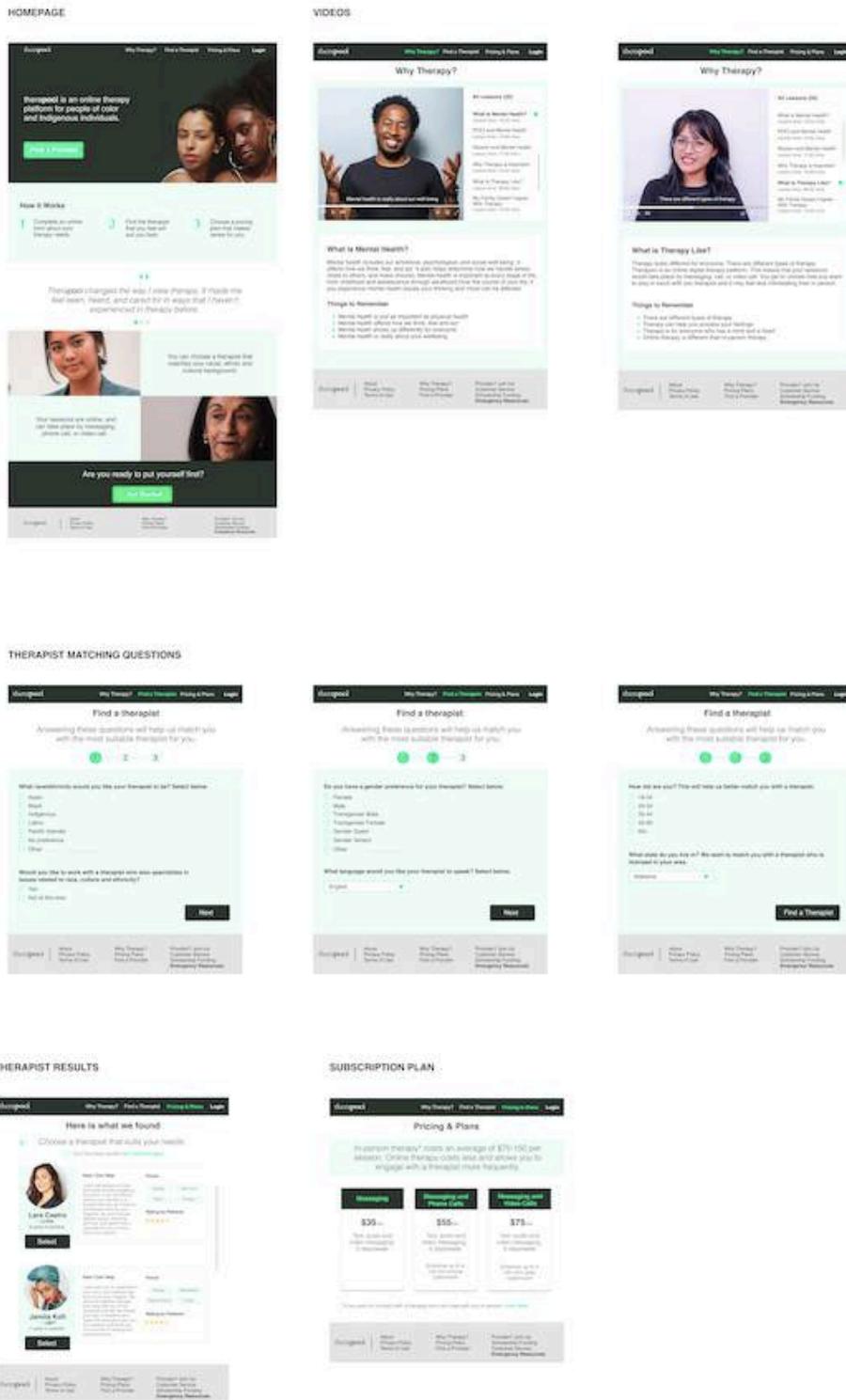


Figure 20. Allay Iteration #2

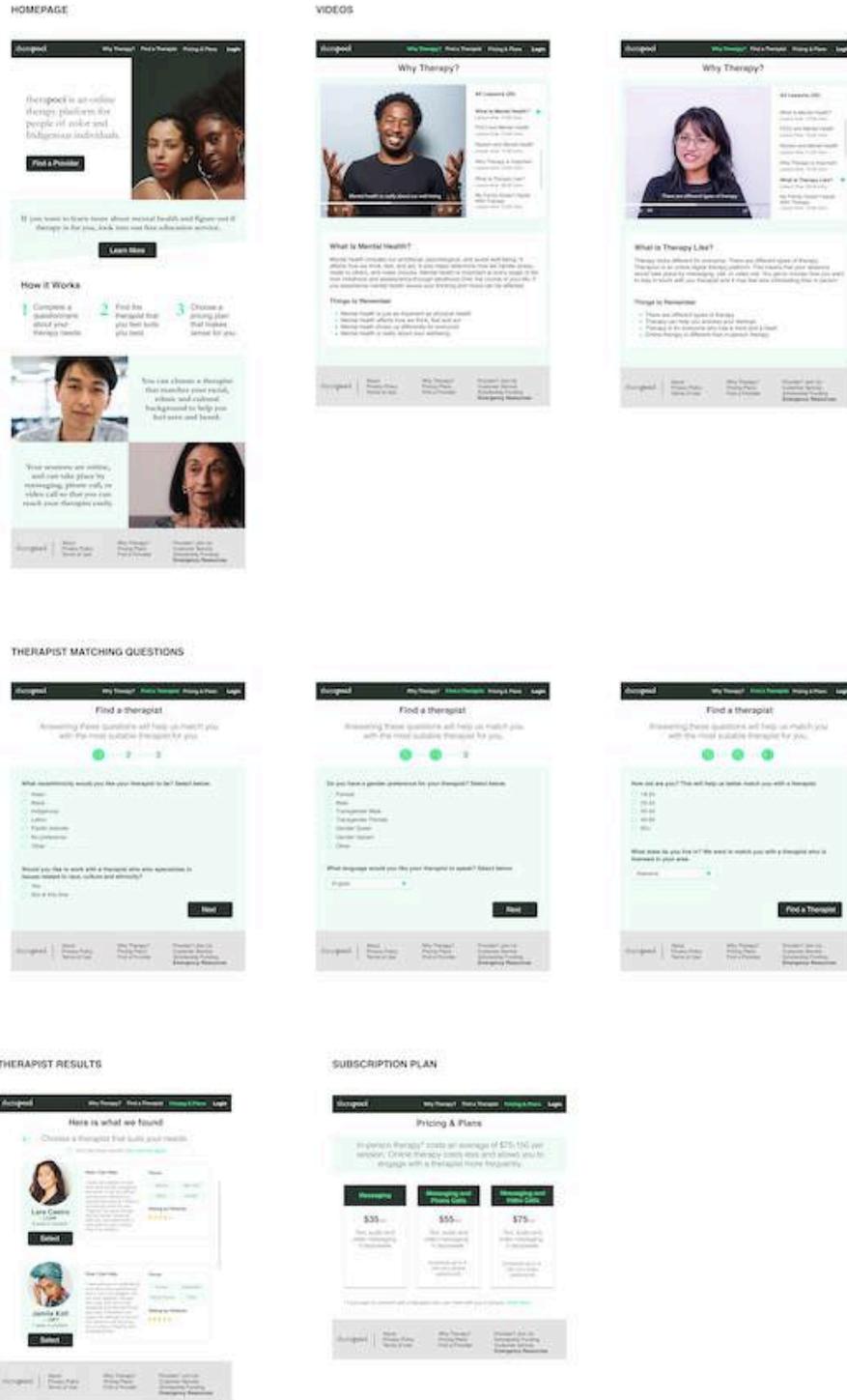


Figure 21. Alloy Iteration #3

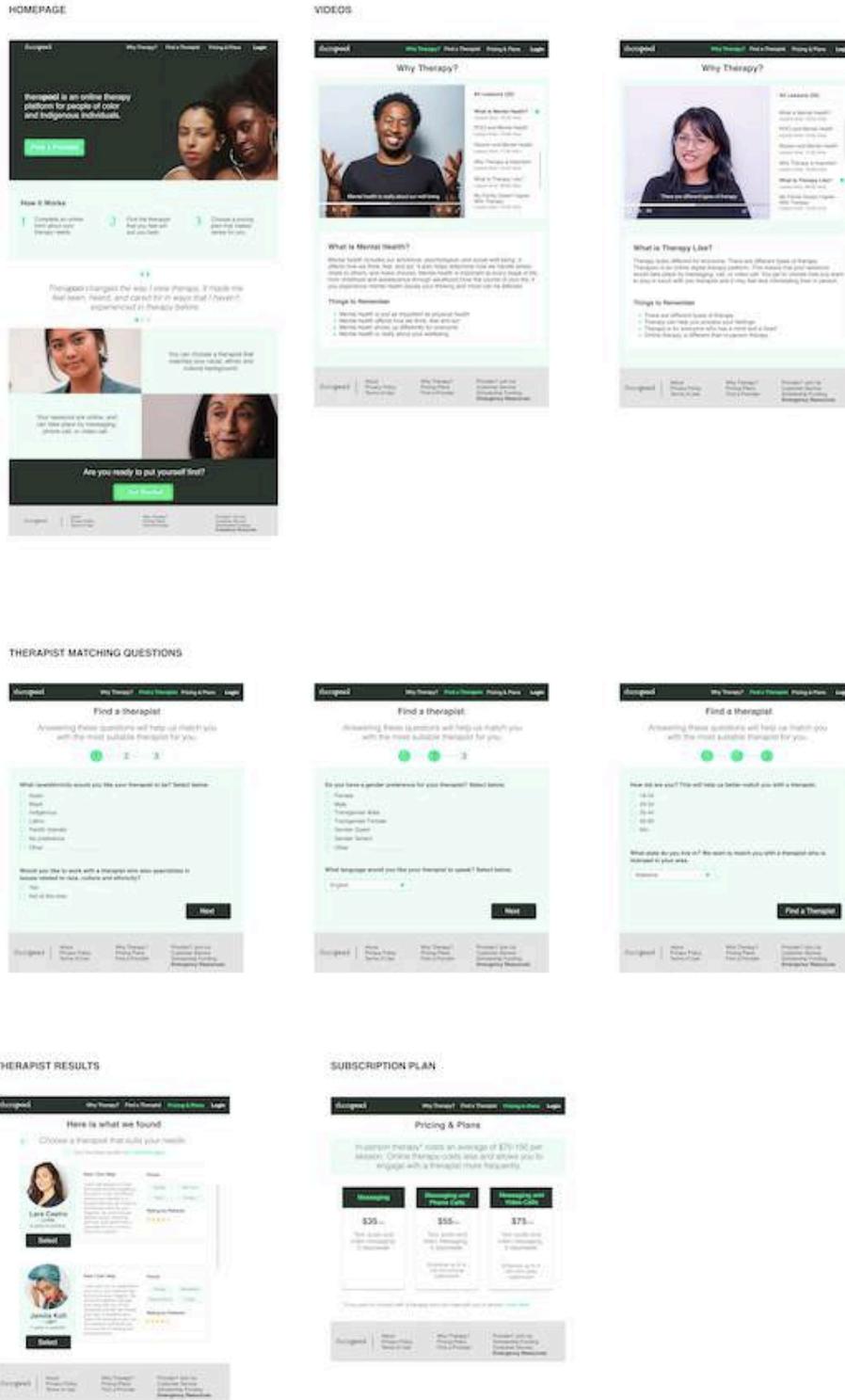


Figure 22. Alloy Iteration #4

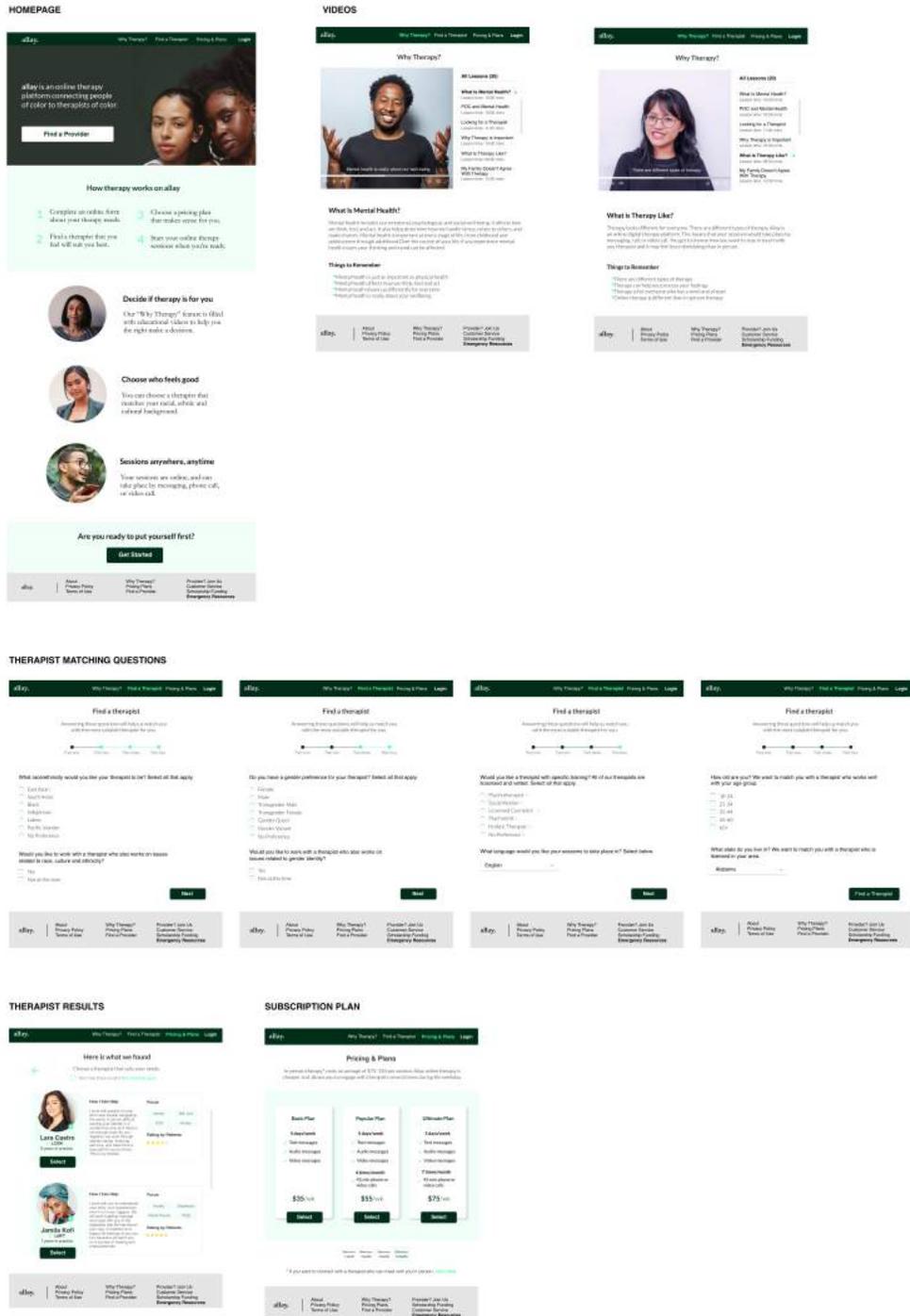


Figure 23. Alloy Iteration #5