

Market Research Draft

By Nathan Laing

Target audience:

According to the Ministry of Health (NZ), ~6 % of New Zealanders suffer from some form of Anxiety disorder, and that while Māori and Pasifika people(s) are thought to be at a much higher risk (due to self-reported psychological stress, they had much lower reported rates than NZ Europeans. This suggests they may be less likely to seek help. Adults from 20-30 were also at high risk. This is where a free and easily accessible app could have a significant impact on both NZ European and Māori/Pasifika young teens and adults struggling with an anxiety disorders.

With professional therapy being extremely expensive and inaccessible to many, there is a market to provide quality information and treatment to those unable to afford to afford it. In recent years, cognitive behaviour therapy (CBT) has been shown to be extremely effective and has exploded in popularity as an alternative to pharmacological drugs (Mayo-Wilson et al., n.d.). This treatment which classically required an expensive expert, can now also be done online (Hedman et al., 2011). In particular apps which utilise mini challenges for users to complete and the use of gamification of social interaction have been found to be effective in reducing social anxiety (Miloff, Marklund, & Carlbring, 2015). Our app should aim to provide a similar service along-size relevant information on where users can find help, judge-free social contact and talk with other people who have been through a similar experience.

Distribution/Marketing:

We have been in contact with the University of Otago's Professor Neil McNaughton who works in the field of anxiety and stress. He has agreed to have email correspondence with us, helping to only include features that would be helpful to actual patients with social anxiety disorder (SAD). We plan to deploy our app through the app store as a free self-help app. This will make it widely and easily assessible to anyone. To market our app to students, we can contact groups such as Silverline Otago, OUSA or the Critic. If any of these are successful we can try and arrange a meet-up feature for local users.

Questionnaire:

To help gauge where users sit on the spectrum of SAD, we can implement a questionnaire. The one most useful in this scenario is the Social Phobia Inventory (SPIN) test (Connor et al., 2000), a well-known, user friendly psychological test for SAD. There are 17 questions and each one is answered on a scale of 1-5. A

score of over 19 indicates a high likelihood of having the disorder. There is also another test called a mini-SPIN which is a 3-item version of the spin, with a reported accuracy of 90% (Connor, Kobak, Churchill, Katzelnick & Davidson, 2001). We could use this as an initial questionnaire or take the ideas from the core questions and use them to improve our marketing.

Stages of Anxiety around an event:

The amygdala, a key player in the fear response, has been found to be over active in people with SAD causing negative social stimuli to become exaggerated (Phan, Fitzgerald, Nathan, & Tancer, n.d.). In conjunction with communication problems with the prefrontal cortex (Sladky et al., 2015), this creates a destructive cycle of increasing anxiety.

People with SAD often experience a common progression of feelings as events draw closer, occur and end. Initially there is the anticipatory stage in which contemplating the event makes them feel anxious. It is at this point which people often start to imagine and obsess over the many ways in which the social event could go wrong. This in turn makes them more anxious which leads to more worrying. So before any social contact has occurred many will isolate themselves to avoid the scary situation.

The anticipatory stage often results in people feeling very worried/anxious about the event as it starts. Since they are in a state of heightened social anxiety they are far more likely to focus on being judged by others and focus on how anxious they feel. This often prevents them from noticing things such as social cues of acceptance from others which would calm them down. This heightened anxiety also causes noticeable physical changes such as sweating, shaking, rapid heart rate, stuttering and more. These changes often confirm in the person's mind their own social incompetence and loss of control over the situation. To try and hide these behaviours and cope with the situation many will avoid attention and rely on alcohol or drugs. This can often worsen the situation as social performance can easily deteriorate with the addition of alcohol and/or drugs and self-isolation.

Once the event has ended the anxiety will often not go away. People suffering from SAD tend to replay situations in their head over and over obsessing about things they said wrong or what other people thought of them. They are far more likely to conclude (due to their own negative bias) that the social situation was far worse than it was leading them to be more likely to avoid similar situations next time or to be more anxious if they do end up going.

General tips and last thoughts:

Most of the anxiety is fuelled by delusions about not being socially good enough or thinking that people will not want to talk to them or judge them. Positive reinforcement and reminders that people don't judge others that quickly or harshly are thought to help a lot in promoting SAD sufferers to engage in social contact.

References:

- Connor, K. M., Davidson, J. R. T., Churchill, L. E., Sherwood, A., Weisler, R. H., & Foa, E. (2000). Psychometric properties of the Social Phobia Inventory (SPIN): New self-rating scale. *British Journal of Psychiatry*, 176(4), 379–386. <https://doi.org/10.1192/bjp.176.4.379>
- Connor Kathryn M., Kobak Kenneth A., Churchill L. Erik, Katzelnick David, & Davidson Jonathan R. T. (2001). Mini-SPIN: A brief screening assessment for generalized social anxiety disorder. *Depression and Anxiety*, 14(2), 137–140. <https://doi.org/10.1002/da.1055>
- Hedman, E., Furmark, T., Carlbring, P., Ljotsson, B., Ruck, C., Lindefors, N., & Andersson, G. (2011). A 5-Year Follow-up of Internet-Based Cognitive Behavior Therapy for Social Anxiety Disorder. *J Med Internet Res*, 13(2), e39. <https://doi.org/10.2196/jmir.1776>
- Mayo-Wilson, E., Dias, S., Mavranouzouli, I., Kew, K., Clark, D. M., Ades, A. E., & Pilling, S. (n.d.). Psychological and pharmacological interventions for social anxiety disorder in adults: a systematic review and network meta-analysis. *The Lancet Psychiatry*, 1(5), 368–376. [https://doi.org/10.1016/S2215-0366\(14\)70329-3](https://doi.org/10.1016/S2215-0366(14)70329-3)
- Miloff, A., Marklund, A., & Carlbring, P. (2015). The challenger app for social anxiety disorder: New advances in mobile psychological treatment. *Internet Interventions*, 2(4), 382–391. <https://doi.org/10.1016/j.invent.2015.08.001>
- Ministry of Health. 2012. The Health of New Zealand Adults 2011/12: Key findings of the New Zealand Health Survey. Wellington: Ministry of Health.

Phan, K. L., Fitzgerald, D. A., Nathan, P. J., & Tancer, M. E. (n.d.). Association between Amygdala Hyperactivity to Harsh Faces and Severity of Social Anxiety in Generalized Social Phobia. *Biological Psychiatry*, 59(5), 424–429. <https://doi.org/10.1016/j.biopsych.2005.08.012>

Sladky, R., Höflich, A., Küblböck, M., Kraus, C., Baldinger, P., Moser, E., ... Windischberger, C. (2015). Disrupted Effective Connectivity Between the Amygdala and Orbitofrontal Cortex in Social Anxiety Disorder During Emotion Discrimination Revealed by Dynamic Causal Modeling for fMRI. *Cerebral Cortex*, 25(4), 895–903. <https://doi.org/10.1093/cercor/bht279>

