

# When Psychology Meets Technology: An Innovative Approach

Isabel Li 01 October 2019

## Executive Summary

Like other developed countries, mental health is one of the major concerns of overburdened citizens in Hong Kong. As a world-class city, the ratio of psychiatrists serving every 100,000 people, is far below the median rate in other high-income economies. In 2016, the Hospital Authority in Hong Kong published a "Mental Health Review Report" (2), in which it was estimated that about 1.7 million out of eight million citizens in Hong Kong have different levels of mental illnesses.

TheraTalk is a multi-disciplinary initiative with experts in psychology and counseling, counseling research, marketing and business, startups, technology, and design that facilitates the technology-based mental health services provision in Hong Kong by featuring a variety of online counseling services, including free mental health screenings and consultation, one-off psychological consultations, periodical text-based counseling, and regular text-based counseling services at the initial stage.

# The Problem

Mental health is an integral part of overall health and well-being, "Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity," as defined by the World Health Organization. In 2013, the World Health Organization highlighted the need to address mental health issues through promotion, prevention, treatment, and recovery (1).

Like other developed countries, mental health is one of the critical concerns of overburdened citizens in Hong Kong. As a world-class city, the ratio of psychiatrists serving every 100,000 people, is far below the median rate in other high-income economies. In 2016, the Hospital Authority in Hong Kong published a "Mental Health Review Report" (2), in which it was estimated that about 1.7 million out of eight million citizens in Hong Kong have different levels of mental illnesses.

In Chinese culture, having mental health illness is often associated with shame and stigma. Oftentimes, there are delays in the recognition, intervention and treatment of mental health issues, along with the absence of a supportive, inclusive, and non-judgmental culture for citizens in Hong Kong to recover from mental health problems. On the other hand, the public's lack of awareness or inability to recognize mental health problems in themselves or people around them also caused delayed treatment and exemplified the effect of

having a mental health disorder.

Hong Kong also has a manpower problem when it comes to mental health. It has the lowest number of psychiatrists per capita in any economically equivalent global city. The waitlist for government mental health services is often more than a year. This alarming number of mental health issues and a shortage of medical and counseling resources have created a ticking time bomb when it comes to holistic mental health care.

## **Alternative Solutions to Mental Health Problems**

Integrating technology into mental health practices has the potential to dramatically shift the traditional format of mental health provision in Hong Kong. Incorporating technology into mental health makes transformative changes in prevention, promotion, and treatment of mental health problems through flexible, immediate, on-demand, personal, individually paced, and stigma-free services. This innovative service model is often called telemental health, telepsychology, e-therapy, cyber-counseling, or online counseling, in which a client can access mental health information, seek professional advice, and track their mental health progress over a mobile application or by internet.

In Western societies, the rapid growth in technology-based mental health services, in particular online

counseling services, has led to the foundation of the International Society for Mental Health Online. In 2013, the American Psychological Association published the “Guidelines for the Practice of Telepsychology” (3) to address the developing area of psychological services supported by technology. However, most of the development in the telepsychology field is operated in western countries. In Asia, the development of technology-based mental health services has been very limited in the past years.

In 2017, the number of smartphone users in Hong Kong was estimated to reach **5.53 million**. (4) By the year 2021, it is predicted that **80.69** percent of the population in Hong Kong will use a smartphone. As the population becomes increasingly reliant on personal electronic devices, a new challenge for mental health practitioners in Hong Kong is to harness technological advancements and leverage technologies in the improvement of current practices, to design more accurate, timely, convenient, and accessible services for their targeted users. Through technology, patients would benefit from improved assessment, immediate treatment, and continuous feedback for better care. The advancement in technology also helps to extend mental health services to people who traditionally might have been excluded from them because of long working hours, limited financial resources, transportation, and other scheduling barriers. With the innovative integration of technology into mental

health practices, technology-based mental health services will be the way to create a better world.

## **When Psychology Meets Technology: An Innovative Approach**



TheraTalk

*Source: Theratalk*

With the vision to reform the current mental health practice in Hong Kong with technology, the duo, Isabel Li, a seasoned psychologist, and Ming Hiu Yau, an information technology expert, co-founded TheraTalk in 2017 along with a dedicated interdisciplinary team composed of technology, psychology, counseling, research, marketing, and business development experts.

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consultations, periodical text-based counseling, and regular text-based counseling services at the initial stage.

Ming is a technology expert with experience in investment banking, who also co-founded a fintech prior to TheraTalk. In his past experiences, he discovered a lot of start-up founders and investment bankers were constantly working in high-pressure environments. As entrepreneurs, startup founders are often facing huge pressures to succeed, using up their life savings, sacrificing family time, and constantly working in a multi-tasking mode. These are all factors that contribute to having high stress. Actually, it is a proven fact that startup founders are twice as likely than the general population to suffer from depression or to have suicidal thoughts (study by Michael Freeman). By witnessing his peers who have been struggling with mental health issues, Ming then teamed up with Isabel, a seasoned psychologist to find a new solution for the public. TheraTalk, ("Therapy + Talk"), a comprehensive technology-based mental health services platform was then established as the first comprehensive mental health startup in Hong Kong, articulating technology with mental health services. Since its incorporation, TheraTalk has been well received across the city and in Asia. In only one year, TheraTalk has served more than 3,000 clients in Hong Kong and in other Asian countries, including mainland China, Taiwan, Malaysia, and Chinese populations living in countries like the United States and United Kingdom.

# How Does It Work?

TheraTalk aims to reform the current mental health practice in Hong Kong to integrate technology with traditional psychology practices. The platform provides support within the spectrum of mental health prevention, early intervention and education. Clients are greeted by their chatbot Amy with no wait time to understand their current mental health issues to initially detect mental health problems. Once the client understands more about his/her mental health status, he/she can be connected with a professional counselor within 24 hours to start their online counseling journey and obtaining, then, an early intervention to mental health care. Throughout their counseling journey, the client works with the same counselor to ensure that the counseling process is continuous, allowing for rapport and trust to be built.



*White iPhone main screen*

*Source: Theratalk*

Unlike traditional counseling sessions, where a client has to wait a week to see the counselor, TheraTalk's clients can text their counselor anytime throughout the day and receive regular feedback from their counselor so that the client's needs are met regularly. On the other hand, the platform also provides free mental health articles for clients to understand more about common mental health issues and trends.

## **TheraTalk Goes Further**

TheraTalk aims to become a comprehensive mental health

hub serving clients in Asia, and the team is currently developing additional features including a free forum for clients to post common problems with the app and mood trackers to measure counseling progress.

The ultimate goal of the project is to promote a paradigm shift to change the stigma of seeking mental health services and to promote public awareness of mental health by providing clients with innovative, accessible, cost-effective, and flexible services. In this process, counseling professionals and clients work hand-in-hand to co-create a healthier world. This innovative approach in psychological services is the first of its kind in Hong Kong, and is believed to significantly reduce the wait-time for traditional mental health services. Results also have proven the services to be effective in overseas countries. Therataalk next envisions collaborating with local universities to ensure the use of innovative practices that are both evidence-based and effective.

## **The Jumpy Journey of a Mental Health Startup**

The journey of promoting a mental health startup was challenging yet fulfilling, although there are a blooming number of mental health tech companies getting into the market in recent years, most of these companies are based in the United States and other western countries. In 2019, the total amount of funding raised by mental health startups tripled compared to the number in 2018 in the

United States, indicating that investors are showing growing interest in the field. However, in Asia, investors and funders still find this field to be very foreign to them. TheraTalk, along with other Asian mental health startups have to work hand-in-hand to promote the field to show effectiveness to convince investors, clients, and the public to understand the importance of mental health identification and intervention.

On the other hand, maintaining a mental health platform requires a lot of expertise in this field. With the shortage of psychiatrists and psychologists in Hong Kong, the professionals must unite and align their practices in order to promote the field together. The cost of mental health can be detrimental for clients who have to pay out of pocket, collaborations with insurance companies, corporations, and even the government to cover mental health expenses is going to be an important health issue to help the whole ecosystem.

Fortunately, we are at a golden age where the stigma around mental health is decreasing globally, people all around the world have become more open about discussing their emotions and mental health statuses, in fact a lot of celebrities around the globe share their journey in fighting mental health issues and these testimonials have helped people to become more aware of the devastating harm mental health can cause to people.

**TheraTalk Today**

Since its creation, TheraTalk has served more than 4,000 clients, proving that there is a need for an alternative form of mental health care. Throughout the process, TheraTalk's team carried out different tests to understand more about their client's behaviors and to constantly seek the best product-market fit in terms of the service and pricing models. Effectiveness measures have also been put in place to understand the efficacy of online counseling services. The preliminary results were promising, almost 80 percent of clients showed a significant reduction in their anxiety and depression levels after using the online counseling service.



*The Asia Social Innovation Award in Hong Kong presented to Theratalk founders Isabel Li and Ming Hiu Yau*

## Future

TheraTalk will continue to expand its landscape in the mental health tech field in the coming years through integrating technology into psychology practices and by adopting innovative technologies, including AR/VR, as well as biofeedback systems into mental health prevention and treatment. The team is in search of funding support from social ventures and private investments to scale up production, hence improving the quality of life for people living in stress more efficiently and effectively.

## Works Cited

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## Author bio

**Isabel Li** is a mindful thinker, social innovator, educator, professional psychologist, arts therapist, and an entrepreneur. As part of her passion to promote the

importance of seeking connections of our body, mind, and spirit in this technology age, Isabel aspires to provide accessible psychological services at a click and to advocate a balanced life as part of a bigger whole.

She holds a Bachelor's degree in Psychology from University of California, San Diego, a Master of Family Counseling and Family Education degree from Chinese University of Hong Kong, a Master in Educational and Child Psychology from Hong Kong Polytechnic University, a Postgraduate Diploma in Education from Education University of Hong Kong, and a Master of Expressive Arts Degree from University of Hong Kong. She is a graduate member in the Division of Educational Psychology, Hong Kong Psychological Society (DEP, HKPS), and a registered arts therapist (AThR) at The Australian, New Zealand and Asian Creative Arts Therapy Association (ANZACATA).