



Addressing Mental Health Stigma in Regional Australia

*A project report on a collaboration with VCPS
on developing their telecommunication service,
Chinwag*

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The views and opinions expressed herein are those of the authors and do not necessarily reflect the positions or opinions of Worcester Polytechnic Institute.

Abstract

This project aimed to reduce mental health stigma in regional Australia by helping develop Victorian Counselling and Psychological Services' telecommunication service, *Chinwag*. The team of Worcester Polytechnic Institute students interviewed and surveyed individuals in regional areas of Australia to determine how to increase awareness of *Chinwag*. The differences between regional and metropolitan Australians were analyzed and summarized in a report. In addition, a website, an informational video, and a social media campaign were created for *Chinwag* in order to improve prospective clients' access to mental health care services in regional Australia.

Executive Summary

This report provides an analysis of the differences in attitudes towards mental health between regional and metropolitan Australians and evaluates methods of increasing access to mental health care in regional Australia.

Mental health is concerned with an individual's psychological and emotional wellbeing (Mental health, 2017). Inadequate mental health care can lead to psychological damage and diminished engagement in society (Latalova, Kamaradova, & Prasko, 2014). Unfortunately, one in four young adults will experience a debilitating mental health disorder in any given year as reported by the World Health Organization (World Health Organization, 2014b). Latalova et al. claim that a lack of awareness and the stigma associated with mental health concerns negatively affect an individual's inclination to seek help managing such concerns.

Stigma is “a mark of disgrace associated with a particular circumstance, quality, or person” (English Oxford Living Dictionaries, 2017). According to a 2016 Australian mental health survey, four million Australians who are affected by mental health issues reported that they experienced stigma associated with their condition on a day-to-day basis (SANE Australia, 2016). Of the estimated 9 million people living with a mental illness in Australia in 2014, about 46% sought mental health treatment (Australian Institute of Health and Wellness, 2017a; Black Dog Institute, n.d.). This means that over half of those dealing with mental health issues did not receive mental health care.

One agency on the forefront of mental health services throughout Australia is the Victorian Counseling and Psychological Services (VCPS). The group is made up of general practitioners as well as mental health care practitioners, including clinical psychologists, counseling psychologists, and psychiatrists (Victorian Counselling & Psychological Service, n.d.). VCPS is interested in making mental health care a part of citizens' ordinary self-care, just like going to the gym. As a part of their effort to improve access to mental health care, VCPS is developing *Chinwag*, a telecommunication service that is intended to provide people in remote locations of Australia better access to mental health care services.

Project Goal and Objectives

The primary goal of this project was to improve knowledge of, and access to, mental health care in regional Australia, by making evidence based recommendations for VCPS' telecommunication service, *Chinwag*. This goal was achieved by analyzing differences in attitudes towards mental health services between regional and metropolitan Australians, soliciting and compiling content for the *Chinwag* website, and evaluating social networks that would be appropriate for increasing publicity and engagement of *Chinwag*.

BACKGROUND

The *Chinwag* telehealth service is specific to residents of regional areas, as determined by the modified Monash model, a geographical classification system based on population data (Australian Government Department of Health, 2016). Medical services are unevenly distributed among these regions, with higher-level Monash regions frequently experiencing insufficient access to such services. While the number of general medical practices in regional areas is low, the number of mental health specialists is almost nonexistent. The use of telepsychology, or counselling sessions over long distances via video conference, phone, and internet, addresses this concern. As of November 1st, Medicare now provides a rebate for seven telepsychology sessions that patients in regional Australia will be able to claim through the Better Access initiative (Australian Government Department of Health, n.d.). Any resident of a Monash region 4-7 has the ability to have a counselling session via video conference. This improves residents of these areas' access to mental health services, and was a driving force behind the development of *Chinwag*.

RESULTS And ANALYSIS

Through the completion of site observations, surveys, and interviews with citizens in the towns of Colac and Warrnambool, insight was gained on the differences between regional and metropolitan Australians. Interviewing general practitioners, directors, and practice managers, and administering usability tests enabled the team to gain an understanding of what content should be included in the *Chinwag* website and social network profiles. Surveys and site observations in regional areas of Australia, as well as content analysis, provided more information about the types of social media used by Australians living in such areas.

Site observations showed there is a need for easier and faster access to mental health services in regional Australia. Since both of these issues are directly addressed by the *Chinwag* service, this was considered an opportunity for *Chinwag* to expand its influence. The need for a service such as *Chinwag* was also reinforced by the data and interviews since it was evident that practices and clinics need additional support services in order to provide clients with more immediate care, as these facilities in regional areas are busy.

The differences between regional and metropolitan Australians' attitudes towards mental health became obvious upon analyzing the mental health survey and comparing the responses to the survey conducted by a group of WPI students in spring of 2017, which focused on a subpopulation of the metropolitan area- students from Melbourne University. By comparing responses to similar questions on separate regional and metropolitan surveys, it was possible to identify some differences between regional and metropolitan Australians. There were also differences among the attitudes of residents of regional areas themselves, as found through

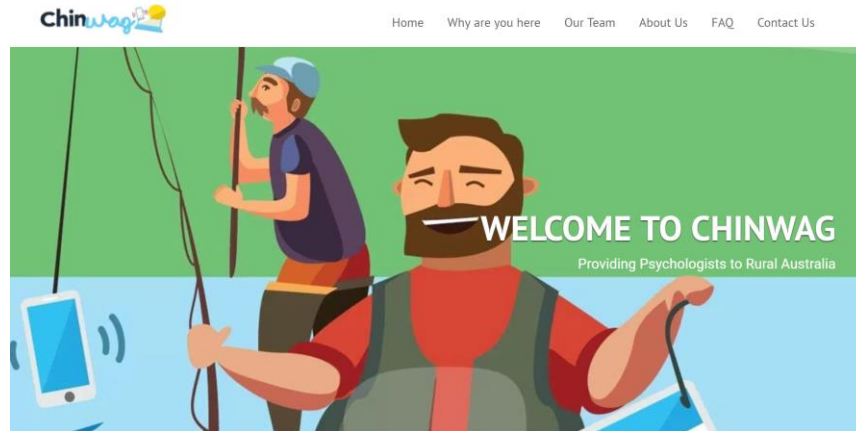
interviews with regional Australians. These differences may suggest that attitudes toward mental health are more reliant on knowledge than location. However, location and age may affect residents' access to education on mental health.

By interviewing general practitioners, directors, and practice managers, the team learned how important the use of *Chinwag* can be to regional Australians. A majority of these interviewees were interested in hearing more about the *Chinwag* service, and lauded the potential it had to help regional Australians. They specifically mentioned that the anonymity the service provided and timeliness of the scheduling would encourage people to seek mental health services. Through the interviews, the team was also able to determine information that would be useful to put on the *Chinwag* website in order to answer common questions general practitioners would likely have. Usability testing further enabled the team to make any changes that were considered significant to the *Chinwag* website.

After analyzing the responses to the social media survey, it was determined that Facebook and Instagram are the two social networks that are most used on a regular basis by regional Australians. An Instagram and a Facebook account were created to promote and inform the public about the *Chinwag* service. Posts were designed to provide general information on mental health to increase the user's knowledge about mental health and reduce the stigma surrounding it, thereby making people more comfortable seeking help. While providing such general information is important to increase the public's awareness and knowledge of mental health, motivational quotes were used since they are popular posts for users to share on social media. These posts will increase the number of people visiting the *Chinwag* page.

DELIVERABLES

For this project, various deliverables were created for VCPS' use and the promotion of *Chinwag*. These include a comparison report on the differences in attitude toward mental health between regional and metropolitan Australians for VCPS' management and *Chinwag's* development teams. Another deliverable was the team's contributions toward the development of the *Chinwag* website, which includes the creation of the About Us, FAQ, and practitioner information pages. Additionally, an informative video demonstrating the client's journey through *Chinwag* was created for general practitioners. Finally, the last deliverable was the management of the *Chinwag* Facebook and Instagram social media accounts through the creation of informative and motivational posts. These deliverables sought to improve *Chinwag* in various ways by providing VCPS with insight on regional Australians' perceptions of mental health, as well as supplying clients with ways to learn more about the service.



Chinwag Homepage

RECOMMENDATIONS

Along with the deliverables, a set of recommendations was created for both VCPS, and other student project teams who may follow up on work done during this project. Field testing of the *Chinwag* website with regional Australians is recommended, as it would provide VCPS with feedback that would be helpful for editing the website. Various additions to the *Chinwag* website are also suggested, such as a page for news articles and a widget displaying social media posts. It is recommended that future teams look into ways to incorporate storytelling posts that fit within both the Worcester Polytechnic Institute's Institutional Review Board and the Australian Psychological Society guidelines. New ideas for possible social media posts could also be developed. Additionally, more time should be dedicated to collecting survey data, as this may increase sample size and therefore produce more accurate and statistically significant results.

SUMMARY And CONCLUSION

The goal of this project was to improve knowledge of, and access to, mental health care in regional Australia through telepsychology. With the results the team gathered and those of the previous WPI group, a report on the differences in attitudes towards mental health between Australians living in regional and metropolitan areas was compiled. It was determined that

regional Australians appeared to be more willing to utilize mental health services. However, since the data collected are not statistically significant, it is recommended that VCPS and future groups collect more data from regional and metropolitan Australians in order to get a more accurate representation of the difference of opinions between these two groups. Additionally, the data collected over the course of the project was used during the development of the *Chinwag* website, informational video, and social media pages and posts. Various recommendations were composed for VCPS, in order to support the expansion of *Chinwag* in the future.

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All group members proofread and edited all sections of the report. Each member contributed in some way to each part of the project mentioned above and the primary individual involved with each part is noted above.

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Chapter 1. Introduction

Good health is reflected in a person's mental, physical, and emotional well-being which allow a person to work productively, deal with the average stresses of life, and engage with their community in a healthy way (World Health Organization, 2014a). Mental health is specifically concerned with an individual's psychological and emotional wellbeing (Mental health, 2017). Inadequate mental health care can lead to psychological damage and diminished engagement in society (Latalova, Kamaradova, & Prasko, 2014). Unfortunately, one in four young adults will experience a debilitating mental health disorder in any given year as reported by the World Health Organization (World Health Organization, 2014b). According to the 2014-2015 National Health Survey compiled by the Australian Bureau of Statistics, about 19% of women and 15% of men in Australia, reported having a mental or behavioral condition such as anxiety or depression (Australian Bureau of Statistics, 2017b). Latalova et al. claim that a lack of awareness and the stigma associated with such conditions negatively affect an individual's inclination to seek help in managing their mental health.

Stigma is "a mark of disgrace associated with a particular circumstance, quality, or person" (Stigma, 2017). According to a 2016 Australian mental health survey, four million Australians who are affected by mental health issues reported that they experienced stigma associated with their condition on a day-to-day basis (SANE Australia, 2016). Additionally, SANE Australia, a national charity for mental health, stated that the stigma surrounding mental health indirectly affects family members, friends, and colleagues of those living with mental health issues. In a separate survey, 86% of Australians who self-reported mental concerns but did not seek help, claimed that they had no need for mental health services (Australian Government, Department of Health, 2009). This high percentage found by the Australian Government's Department of Health is likely due to the lack of knowledge regarding mental health care and the discrimination received by those who access mental health services (Henderson, Evans-Lacko, & Thornicroft, 2013). Of the estimated 9 million people living with a mental illness in Australia in 2014, about 46% sought mental health treatment (Australian Institute of Health and Welfare, 2017a; Black Dog Institute, n.d.). This means that over half of those dealing with mental health issues did not receive mental health care.

In order to address stigma and discrimination, the Australian Department of Health is implementing the Fifth National Mental Health Plan, a policy that expands on service delivery, quality of care, and support (Department of Health, 2016). One reform of this plan includes having Primary Health Networks take over the roles of the Australian Government's mental health and suicide prevention activities (Australian Institute of Health and Welfare, 2016).

One agency on the forefront of mental health services throughout Australia is the Victorian Counseling and Psychological Services (VCPS). The group is made up of general practitioners as well as mental health care practitioners, including clinical psychologists, counseling psychologists, and psychiatrists. Each practitioner provides services to clients of varying ages and cultural backgrounds (Victorian Counselling & Psychological Service, n.d.). VCPS is interested in making mental health care a part of citizens' ordinary self-care, just like going to the gym. As a part of their effort to improve access to mental health care, VCPS is developing *Chinwag*, a telecommunication service that is intended to provide people in remote locations of Australia better access to mental health care services.

With respect to the efforts of VCPS to reduce the stigma associated with mental health, the goal of this project was to improve knowledge of, and access to, mental health care in regional Australia, by making evidence based recommendations for VCPS' telecommunication service, *Chinwag*. To achieve this goal, three objectives were identified; i) analyze differences in attitudes towards mental health services between regional and metropolitan Australians; ii) solicit and compile content for the *Chinwag* website; and iii) evaluate social networks that would be appropriate for increasing publicity and engagement of *Chinwag*. The final recommendations and content will serve to inform Australians about the benefits of mental health care services and the negative effects of mental health stigma on the population, through the use of *Chinwag* and social networks.

Chapter 2. Literature Review

2.0 Introduction

This chapter provides information relevant to understanding mental health care and the stigma associated with mental health care within Melbourne. We begin by describing the profile of the sponsor, VCPS. We will also profile key stakeholders including VCPS, prospective clients of VCPS living in regional and metropolitan areas, general medical health practitioners and mental health specialists. We will examine the state of mental health care in Australia based on government issued reforms and general practitioner referrals. Next, the effects of stigma that surround mental health care will be discussed. Finally, we examine two case studies in order to gain a better understanding of the results of other campaigns that aimed to increase mental health awareness and reduce stigma.

2.1 Agency Profile: Victorian Counseling and Psychological Services

VCPS is a private mental health care practice in Melbourne founded in 1996 (Victorian Counselling & Psychological Service). Currently, VCPS has seven locations in Melbourne, each of which are shown by red dots on the map in Figure 1.

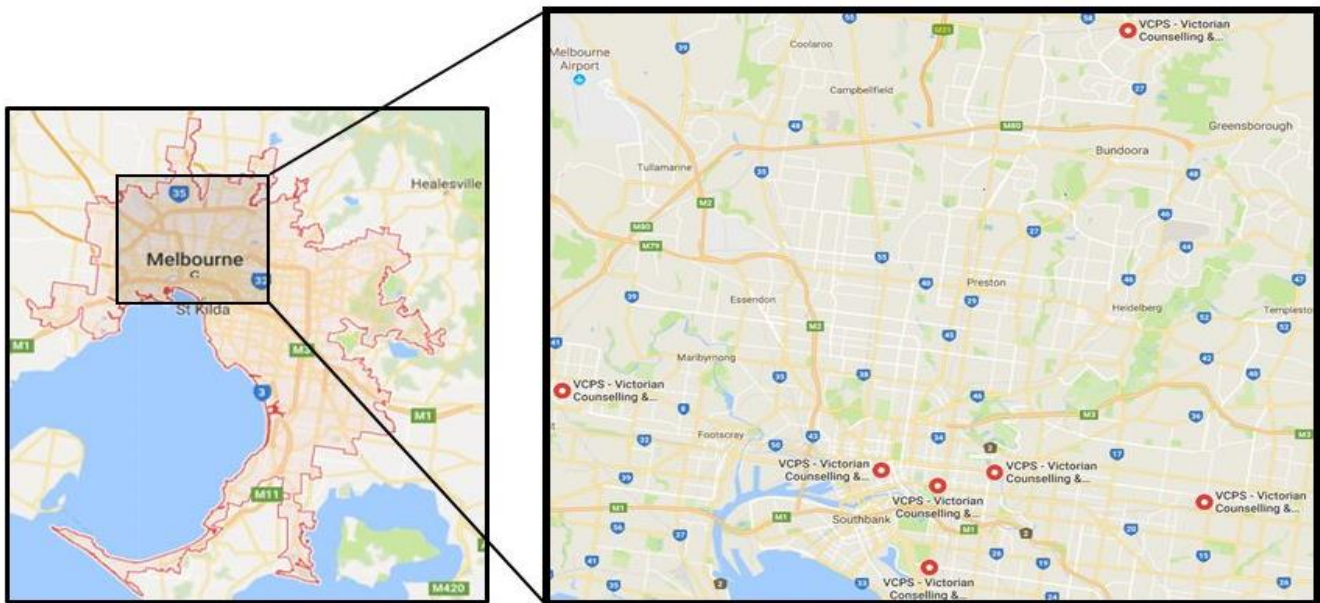


Figure 1. A map displaying all VCPS clinics located in Melbourne (Modified from: Google n.d.a; Google n.d.b).

Each location hosts a variety of professional mental health practitioners, who specialize in handling affairs including relationship issues, adolescent development, addiction, depression, and anxiety. In addition to these, VCPS also has travelling clinicians across Australia.

The mission of VCPS is to work with its patients on developing their “client journey.” This “journey” is focused on developing a relationship between the client and psychologist, with the hope that the patient will want to return for more sessions. This process is initiated by first matching clients with psychologists that can meet the client’s needs. Later, VCPS engages with clients at various points during their time with the agency so that positive dynamics are established between both parties. VCPS strives to show clients that they can be successful regardless of any mental concerns they may have (N. Ace, personal communication, Sept, 2017).

VCPS provided the team of Worcester Polytechnic Institute (WPI) students with work space, resources, and mentorship. The agency has experience developing campaigns with the help of university students. Earlier in 2017, a group of WPI students worked with VCPS to create a web based campaign aimed at reducing the stigma surrounding mental health. This campaign, “I See a Psychologist,” is a website that contains videos, surveys and quizzes about mental health. The website’s goal is to provide the public with a wide range of resources to inform them of mental health services (Bianco, Daci, & Tobar, 2017). Portions of this website will be integrated into VCPS’ website for *Chinwag*. Eventually, the administrators of VCPS want *Chinwag* to serve as a platform where people living in remote regions of Australia can access mental health care in an affordable, timely manner (P. Maliadis, personal communication, October 23, 2017).

2.2 Key Stakeholders

There are four key stakeholder that have been identified:

- Project sponsor, VCPS, who provides the team with the means to carry out the project
- Prospective clients of VCPS
- General medical health care practitioners such as medical doctors, nurse practitioners and other primary care providers, who diagnose mental health disorders and refer patients to specialists
- Mental health specialists, such as psychologists and psychiatrists, who are responsible for providing support to their patients who experience mental health concerns

Details about each group of stakeholder are outlined below.

2.2.1 Demographics of Prospective Clients

The *Chinwag* telehealth service is specific to residents of regional areas, as determined by the modified Monash model, a geographical classification system based on population data and illustrates in Figure 2 (Australian Government Department of Health, 2016). The higher the number of the Monash region, the lower the population in that region. Therefore, Monash regions 4-7 correspond to remote regions of Australia. Medical services are unevenly distributed among these regions, with higher-level Monash regions frequently experiencing poorer access to such services. For this reason, one of the key stakeholders during the project were potential clients of VCPS living in regional Australia.

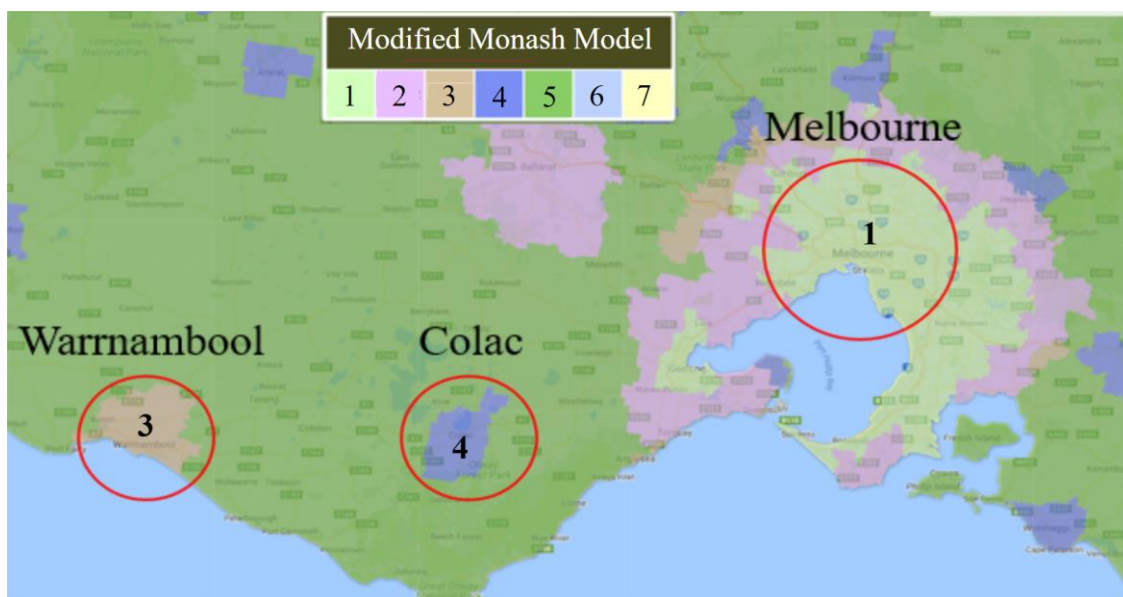


Figure 2. Modified Monash model map, including Melbourne, Colac, and Warrnambool.

About 32% of Australians live in Monash regions 4-7 (Services for Australian Rural and Remote Allied Health, n.d.). Populations residing in such regions tend to include many children but few young adults and older people, according to the Services for Australian Rural and Remote Allied Health. Additionally, in those Monash regions, occupations are usually agricultural based. For example, Colac is a Monash region 4 town. In 2016, there were just over 12,000 people living in Colac, and the primary industries included agriculture, food processing and forestry. Over 21% of residents are labourers, making them the largest portion of the workforce in the town of Colac (Qpzm LocalStats, 2017).

Although the *Chinwag* program is targeted at regional Australians, it is important to understand the population of Australians in metropolitan areas as well. Metropolitan areas tend to have a higher concentration of professional services, with less focus on agriculture based jobs

and industries (Australian Bureau of Statistics, 2008). An example of one such area is Melbourne, which is a Monash region 1 city with a population in 2016 of almost 4.8 million people. In 2011, professional, scientific and technical services, accommodation and food services, and healthcare and social assistance were the primary industries, with only 3.3% of Melbourne citizens categorized as labourers (Australian Bureau of Statistics, 2017a).

The population of Australians living in regional areas differ in many ways from those who live in metropolitan areas (Aitken & Otmar, 2016; Australian Institute of Health and Welfare, 2017b). Due to the lack of public transport in remote areas, it is difficult for regional Australian residents to travel to medical centers, which therefore reduces their access to services provided by those centers. This is especially true regarding mental health services, which people are less likely to seek due to the poor understanding and knowledge many regional residents have with regards to mental health (D. Hobday and J. Smith, personal communication, October 25, 2017).

While those living in remote areas of Australia have inadequate access to health services, they also experience more disease and injury than those living in metropolitan areas. Physical risks from their occupation are higher, due to the strenuous work they do (i.e. farming, shipping, mining, etc.) (Aitken & Otmar, 2016; Australian Institute of Health and Welfare, 2017a). Aitken and Otmar also state that smoking and alcohol use is higher in remote areas. As a result of these factors, regional Australians tend to have a shorter life expectancy. Aitken and Otmar go on to explain that these poor health outcomes can be attributed to the higher population of Aboriginals or Torres Strait Islander Australians in remote regions, who are known to smoke and use alcohol more than the non-indigenous Australians (Aitken & Otmar, 2016; Australian Institute of Health and Welfare, 2014; Australian Institute of Health and Welfare, 2017b). In addition to health concerns, Professor Barclay found that regional Australians also have fewer years of education and lower income (Barclay, 2014). This further reduces their knowledge of, and access to medical services, especially those specific to mental health.

2.2.2 General Medical Health Practitioners

General medical health practitioners¹ were identified as key stakeholders for this project. This group is responsible for the identification of mental concerns that are experienced by the prospective clients of VCPS, as well as referring patients to specialists. GPs are the first professionals many people go to when they begin to see inconsistencies in their mental well-

¹ From now on we will refer to general medical health practitioners, which includes medical doctors, nurse practitioners, and other primary care providers, as GPs

being. As a result, it was important for the team to learn about GP's knowledge of mental health and evaluate GP's attitudes towards referring patients to specialized mental health services.

In 2011, there were almost 200 GPs per 100,000 citizens in the state of Victoria out of the 5 million people living there (Australian Bureau of Statistics, 2013). For comparison, there were about 315 GPs per 100,000 citizens out of the 6.6 million people living in the state of Massachusetts in the United States in 2012 (Weigley, Hess, & Sauter, 2012). After extensive research, limited data was found regarding the ratio of GPs to citizens in remote areas, however it was determined to be much lower than that of all of Victoria through interviews with healthcare specialists from regional Australia (D. Hobday and J. Smith, personal communication, October 27, 2017). According to Hobday and Smith, the uneven distribution of health care providers in these areas is partially due to the limited number of GPs who decide to practice in the countryside upon graduating from medical school.

A GP evaluates a patient's mental health, and then determines the treatment plan, which could include prescribing medication or writing a referral to a specialized mental health care provider, such as a psychologist (Goodrich, Kilbourne, Nord, & Bauer, 2013). In order for a GP to refer a patient to a specialist, the GP must perform a mental health assessment and set up a mental health treatment plan with the patient. The assessment that the GPs complete before they can refer their patients to see a professional needs to be comprehensive and is done to ensure that the psychologist will have a better understanding of the patient's needs (Australian Psychological Society, 2015). However, GPs are not always equipped with the detailed mental health knowledge needed to provide the patient with adequate care or diagnosis (Goodrich et al., 2013; Pence, O'Donnell, & Gaynes, 2012). Although there is little information pertaining to Australian GPs' mental health training, a study by the World Health Organization found that globally, just over 2% of physicians received at least two days of mental health training in the two years prior to the study (World Health Organization, 2015).

In a study of nearly 100,000 appointments that Australian GPs had with patients, about 13% of these encounters (~13,000) were related to mental health. Referrals were made to specialists in only 5% of these sessions (~650), and only 1.2% of these 650 referrals to specialists were to psychologists (~8). These data show that the number of referrals being given for mental health disorders is quite low, considering that 53% of the total GP encounters related to mental health resulted in medication being prescribed (Britt et al., 2015). The high number of encounters that resulted in the prescription of medication instead of a written referral to a specialist with more experience with mental health conditions, suggests that the patient's mental health issue may have been inadequately treated by the GP. This problem could be partially addressed if the GP elects to take Focused Psychological Strategies Skills Training or Mental Health Skills Training (R. Lizza, personal communication, October 25, 2017). This training

makes it possible for the GPs to be more versed in mental health care, and therefore treat or refer their patients more effectively. It was important for the team to learn about general practitioners' knowledge of mental health and evaluate their attitudes towards referring patients to specialized mental health services.

2.2.3 Mental Health Specialists

Psychiatrists, psychologists and mental health nurses are all considered mental health professionals, and specialize in diagnosing and providing treatment to patients who experience mental health issues. Psychiatrists differ from psychologists in that psychiatrists can prescribe medication for treatment as they are medical doctors, while psychologists earn a Doctorate of Philosophy or Psychology and focus on behavioral intervention for treatment (European Foundation for Psychologists and Analysts, 2017). In 2015, there were approximately 100 full time equivalent² psychologists and 14 full time equivalent psychiatrists per 100,000 people in Victoria (Mental Health Services of Australia, 2016). While the number of GPs in regional areas is low, the amount of mental health specialists is almost nonexistent (D. Hobday and J. Smith, personal communication, October 25, 2017).

2.3 Telepsychology

Telehealth is defined as the use of telecommunication techniques for the purpose of providing telemedicine³, medical education, and health education over a distance (Australian Government Department of Health, 2015). Telehealth services are used in various fields of health care. These services can be used in diagnosis, treatment, preventative and curative aspects of medicine. Telepsychology is the provision of psychological services using telecommunication technologies (American Psychological Association, 2017a).

One of the most difficult barriers for residents of remote areas of Australia who need mental health services is access to such services. Ability can be limited due to physical restrictions, lack of specialist availability, or extensive distance to services. In these cases, the use of video conference, phone, and internet for counselling sessions over long distances has several advantages. These include: increased access for those with disabilities, increased access to services in areas with few mental health specialists, flexible scheduling, and timely bookings (American Psychological Association, 2017b).

² Full Time Equivalent (FTE) is the measurement of the amount of full time workers there are in an industry. It's used to compare psychologists since not all psychologists work full time (40 hours / week).

³ Telemedicine is defined as "the use of advanced telecommunication technologies to exchange health information and provide health care services across geographic, time, social and cultural barriers."

2.4 Australian Government Mental Health Reforms and Policies

The Australian government has provided the public with rebates⁴ specified in their universal Medicare⁵ plan. Currently, Medicare will provide a rebate for twenty total sessions with a counsellor, split between ten individual and ten group settings. If the counselling session costs more than the amount in the rebate, then the patient is expected to pay the difference. However, Australians are only eligible to receive the Medicare rebate if their general practitioner, psychiatrist, or pediatrician refer them to mental health service (Australian Psychological Society, 2015).

As of November 1, Medicare now provides a rebate for seven telepsychology sessions that patients in regional Australia will be able to claim through the Better Access initiative (Australian Government Department of Health, n.d.). Any resident of a Monash region 4-7 has the ability to have a counselling session via video conference. This improves access to mental health services, and was a driving force behind the development of *Chinwag*. However, one of the first four sessions must be in person with a GP who has Focused Psychological Strategies Skills Training or a psychologist, which may prove to be difficult to arrange.

In addition to the Medicare plan, the Australian department of health is increasing focus on mental health care. A set of guidelines drafted in 2014 is the Fifth National Health Plan. The document details the actions that the nation should take in order to increase the overall mental health of Australia. The priorities listed on the plan are: integrating regional planning and service delivery, coordinating treatment and support for people with severe and complex mental illness, suicide prevention, Aboriginal mental health and suicide prevention, physical health of people living with mental health issues, stigma and discrimination reduction, as well as safety and quality of care in the mental health field (Department of Health, 2016). These items diverge from those listed in the Fourth National Health Plan, which had a stronger focus on increasing Australians ease of access to health care (Department of Health, 2009). Regardless of these guidelines and policies that aimed to increase the use of mental health services, most citizens don't use the services provided to them due to public stigma surrounding mental health.

2.5 Stigma and Its Relation to Mental Health Care

Stigma is most prevalent through the creation and use of stereotypes and labels by the public. The stigma associated with mental health issues, in particular, is prevalent in today's society. Two ways that individuals can improve the stigma surrounding mental health include:

⁴ Rebates are defined as a partial refund or monetary return by the Australian government to its citizens.

⁵ The Australian national health care plan, Medicare, should not be confused with the United States national health care plan of the same name.

possessing information surrounding mental health, and reconsidering negative stereotypical views they may hold towards people with mental health issues.

The relationship between the lack of information and the prevalence of stigma surrounding mental health was explored in a study of 39 university students from West Midlands, England (Simmons, Jones, & Bradley, 2016). In this study, questionnaires assessing mental health knowledge relating to stigma were completed before and after the distribution of information about mental illness. Scores of each participant's knowledge reflected their perceptions towards mental health. Out of the 39 participants, an increase in stigma was found in 24 participants. There was no improvement in stigma levels in 12 participants and no change was seen in 3 participants. Therefore, Simmons et al. found that stigma, or negative perceptions, were significantly reduced after information about mental health was communicated to the participants and assimilated. This study supports the idea that a lack of information is likely related to mental health stigma.

An additional study measured how knowledge impacts stigma (Ke et al., 2015). In the study a one-hour classroom-based workshop was administered on mental health stigma to about 280 secondary school students. As part of the workshop, the students were shown video clips of young people talking about their experiences living with and recovering from their mental health issues. In the workshop, the students were also asked to reflect on their own experiences in order to recognize and appreciate similarities between themselves and the young people in the videos. A questionnaire that focused on the stereotypes students hold and on their desire for social distance from those who have a mental health issue was distributed before, immediately after, and one month after the workshop. Analysis of the responses to the questionnaire showed a 23% decrease in the desire for social distance immediately after the workshop. Furthermore, a 21% decrease was found one month after the workshop compared to the initial questionnaire. However, while there was an increase in knowledge about mental health issues through the workshops, there were no improvements in scores that measured stereotypes. These changes demonstrate a reduction in desire for social distance and suggest that this reduction is induced by improving the knowledge of mental health issues. Thus, the lack of knowledge would be an important area to focus on when attempting to reduce the stigma surrounding mental health.

An additional research study was conducted in Australia which identified negative stereotypes related to stigma (Reavley & Jorm, 2011). In this study, approximately 6000 Australians aged 15 and over were presented with a story describing conditions such as depression, early schizophrenia, and social phobia. Participants were asked about their perceptions of discrimination, personal and perceived stigma, and desire for social distance through interviews. The findings showed that participants thought that some mental health issues such as social phobia were a personal weakness. They mentioned that they would prefer not to

employ someone with a mental disorder, such as schizophrenia, which they associated with dangerousness and unpredictability. Participants also displayed a greater desire for social distance from men with mental disorders more so than women with mental disorders. Moreover, it was found that participants perceived other people as more likely to hold stigmatizing attitudes compared to themselves. This shows that negative stereotypes towards mental health issues are often integral to perceptions, and that people are not always aware of their own perceptions.

2.5.1 Stigma on Seeking Mental Health Care

“Stigma and discrimination in relation to mental health issues have been described as having worse consequences than the conditions themselves” (Thornicroft et al., 2016). As a result of stigma, individuals who experience mental health problems often avoid seeking professional help or fail to fully participate in therapy once they have begun (Corrigan, 2004). Research suggests that prevention measures for mental disorders can be effective but are often not implemented due to stigma, discrimination and lack of knowledge (Rüsch & Thornicroft, 2014). Possible prevention measures include getting routine medical care by visiting a mental health care provider regularly, paying attention to warning signs by working with a therapist to understand what might trigger symptoms of a mental disorder, and making a plan on how to address any change in feelings or return of symptoms (Mayo Clinic, 2015). Similarly, in both Europe and the United States, the majority of people diagnosed with mental disorders do not seek treatment (Clement et al., 2015). This is partially due to the various types of stigma that they are subjected to, which are defined below in Table 1. In particular, meta-analysis conducted on 51 qualitative studies from the United States of America, Canada, Europe, Australia, New Zealand, Asia and South America, established that the types of stigma shown in the table are interrelated and can often be experienced simultaneously (Clement et al., 2015).

| Type of Stigma | Definition |
|----------------|---|
| Anticipated | The apprehension of being perceived or treated unfairly by others |
| Experienced | The experience of unfair perceptions or treatment |
| Internalized | One's personal unfair perceptions about him/herself |
| Perceived | One's own perceptions about society's views on mental illness |
| Endorsement | An individual's perceptions towards others with mental illness |
| Treatment | Linked to the public perception toward using mental health services |

Table 1. Types of stigma (Clement et al., 2015).

Clement et al. also discovered that there was a dissonance between an individual's personal beliefs surrounding their mental health concern, and their expectation of society's views of them. Although these citizens knew that mental health stereotypes such as "being crazy" do not hold true, they still expected to experience negative consequences such as labelling, rejection, embarrassment, and discrimination due to their mental health concerns. In order to avoid experiencing these ramifications, individuals with mental health issues delayed seeking mental health care and talking to others about their concerns. Some people do experience these consequences, and end up avoiding mental health care altogether.

Finally, a cross-sectional interview survey of around 8800 participants from Belgium, France, Germany, Italy, the Netherlands and Spain investigated perceived stigma (Alonso et al., 2009, p. 180). Questions regarding embarrassment and discrimination due to mental health concerns were asked and responses were analyzed. Findings showed that about 15% of participants who had a 12-month disorder and a significant disability had perceived stigma, defined in table 1. Alonso et al. also found that perceived stigma was associated with "decreased quality of life, higher work and role limitation, and higher social limitation."

2.6 Types of Successful Campaigns Relating to Mental Health Stigma

A meta-analysis was conducted on a number of different studies which focused on reducing public stigma surrounding mental illness, such as schizophrenia and depression. The analysis found that education, contact, and protest are the primary ways that effectively reduced

mental health stigma (Corrigan et al., 2012). Contact refers to one-on-one contact with people experiencing stigma and protest aims to highlight the injustice of stigma and eliminate harmful representations in the media (Corrigan et al., 2012). The meta-analysis included more than 38,000 research participants from fourteen countries and found education to be the most effective at reducing stigma among adolescents, while contact was more effective among adults. The educational approach targets inaccurate stereotypical views towards people with mental health issues and provides facts to replace them. Corrigan et al. found that past strategies included printouts of flyers and books, as well as the development of web pages, podcasts, videos and movies.

A meta-analysis of 33 randomized controlled trials found on PubMed, PsychINFO and Cochrane databases investigated the effectiveness of existing programs, including educational interventions, interventions that made use of customer contact, and internet programs. These aimed to reduce three major categories of stigma: personal stigma, defined as the personal attitudes towards others, perceived stigma, defined as one's own perceptions about society's views on mental issues, and self-stigma, which is defined as negative attitudes towards oneself (Grant, et al. 2016; Griffiths, et al. 2014). Findings from this analysis showed that educational interventions were effective in reducing personal stigma. However, there was no evidence to show that educational interventions reduced perceived or self-stigma (Griffiths et al., 2014).

An additional approach to reducing mental health stigma is interpersonal contact with people experiencing the stigma (Corrigan et al., 2012). The contact may be one-on-one so that an individual from the general population can engage with someone with a mental health problem and realize that they have common interests or lifestyles. The contact can also include a common goal where the interaction between them shows the inaccuracy of stereotypical views. Corrigan et al. go on to say that people from the general population who participate in this approach, usually become less prejudiced towards people with mental issues. The meta-analysis discussed above also found that interventions that used interpersonal contact were effective in reducing personal stigma (Griffiths et al., 2014).

A research program that systematically reviewed 35 studies conducted with college students investigated the effectiveness of interventions to reduce mental health stigma (Yamaguchi et al., 2013). Yamaguchi et al. found that interventions which used social contact, meaning social interaction with people living with a mental health issues, or interventions using video-based social contact were the most effective in improving students' attitudes and reducing their desire for social distance. Furthermore, a study where approximately 3700 participants were interviewed before and after taking part in multiple interventions found that there was a significant improvement in attitudes and behaviors related to mental health and there was a 99% certainty that this improvement was produced by the interventions (Maulik et al., 2017). In this

study, social contact was identified as one of the most beneficial interventions that led to a significant reduction of mental health stigma with a 95% certainty that stigma was reduced as a result of the interventions.

The last approach at reducing mental health stigma is social activism, or protest. Corrigan et al. claim that such campaigns target offenders or those who are unaware of their harmful actions by using phrases such as, “Shame on us all for perpetuating the ideas that people with mental illness are just ‘big kids’ unable to care for themselves”. However, they go on to say that research has shown that this strategy might also have negative effects, as it often provokes a “rebound” from those who are told to suppress stereotypes. The prejudice then worsens, as a result. Moreover, the protest approach is also used through social media campaigns in an effort to encourage people to share their experiences with mental health issues (Beyondblue, 2015). For example, in 2013 *beyondblue*, a mental health support service, used the protest approach, combined with the educational and contact, in the *I Am Anxiety* campaign where people used the hashtag #IamAnxiety in Twitter as a way to protest individuals hiding their anxiety. The protest approach is considered to be successful in giving individuals a voice and persuading them to speak openly about mental health.

2.7 Case Studies

Below, two campaigns that address the stigma surrounding the use of mental health services are described.

2.7.1. Case Study 1: *Opening Minds* Anti-Stigma Program, Canada

The *Opening Minds* anti-stigma program of the Mental Health Commission of Canada, evaluated an educational seminar that focused on reducing the stigma related to mental health care. Attendees included journalism students as well as interested members of the public. During the conference, three speakers shared their experiences with mental health issues, and expressed the impacts that stigma had on their lives. Additionally, the role of media, and its effect on stigma were discussed by two media experts. The attendees were asked to complete a survey regarding their perceptions of stigma surrounding mental illnesses before and after the presentation (Stuart, Christie, Koller, & Pietrus, 2011).

The responses to the survey questions were then analyzed to determine if the audience’s perception of mental illnesses changed after hearing from the speakers. Of the 89 students who completed the pre-presentation survey, 53 responded to the post-survey. 72% of the attendees that responded to both surveys said that their views on mental illness changed. Specifically, the journalism students mentioned that they would try to portray mental difficulties in a more

positive manner through their works. The perception of the dangerousness and unpredictability of people suffering from a mental illness was the largest change found in the survey. Of the people who completed both surveys, there was a 26% increase in the number of people who disagreed that people with mental illnesses are dangerous and unpredictable. Moreover, participants' attitudes changed regarding the effects of mental illness on a patient's ability to work and his/her trustworthiness. The audience's knowledge of mental health services increased, however the conference had an unforeseen negative effect on them. Initially 88% of the study sample thought they would visit a mental health specialist if they thought they had a mental illness. After the presentation, only 74% of the study sample were likely to visit a mental health specialist, dropping by 14%. This could be due to the fact that they became more aware of the stigma that follows mental illness and didn't want to experience discrimination (Stuart, Christie, Koller, & Pietrus, 2011).

Although this case study was based on a single uncontrolled sample group, the results were consistent with other educational programs. This case study is an effective way to obtain an understanding of the types of questions that should be asked in a survey to determine social perceptions of mental health. It also demonstrated a type of campaign that is effective in changing the stigma related to mental health. One improvement that could be made to this study would be establishing a more controlled sample group to obtain more accurate results for an analysis. At the same time, it is important to consider who is chosen to participate in the study as they will be exposed to information targeting mental health stigma and will be responsible for advertising and relaying this information to the public.

2.7.2. Case Study 2: “Like Minds, Like Mine” New Zealand

“Like Minds, Like Mine” is an ongoing campaign held in New Zealand to reduce stigma for those with mental illness and increase social inclusion. This campaign was a public health project started by the New Zealand Ministry of Health, with a goal to increase awareness of mental health by using mass media advertising and community education. This campaign's first phase focused on giving mental illness personal relevance to the members of the community, while the second phase's objective was to get well-known New Zealanders to share their personal experiences with mental illness. The developers of the campaign used television, radio, magazines and other marketing techniques to share these experiences with a wide variety of people to make more emotional connections (Vaughan & Hansen, 2004).

Results of this case study showed that after phase one, advertisement awareness was at 67% and after phase two, it rose to 80%. Even after 8 months of no advertisement, 53% of people still remembered the advertisements. After viewing these advertisements, the public believed that having a mental illness was not shameful; it affects a large variety of people; and

people with mental illness should be understood and provided support. More than 80% of the people who took the survey described that they felt the advertisements helped reduce the stigma surrounding mental illness and increased public sympathy for people suffering from mental health problems (Vaughan & Hansen, 2004).

Survey questions from this case study provide insight for future projects concentrated on countering stigma and discrimination towards mental health. The study presented a type of campaign that successfully changed the attitudes of a wide range of people. It also showed that media has a powerful effect on the opinions people form. Even though this campaign was very successful, other techniques should still be considered as it took two years to complete.

Due to the success of the initial campaign, “Like Minds, Like Mine” is continuing its work by implementing a five year plan from 2014 to 2019. The project aims to: promote the campaign using positive portrayals through messaging and media; create an innovative community activity to help with social inclusion of those with mental health issues; involve people with mental health issues into leadership and coordination positions; and research and evaluate ways to improve social inclusion. The final outcome of these impacts, will urge society to be stigma free and inclusive of those with mental illnesses (Ministry of Health and Health Promotion Agency, 2014). This makes the team more aware of how to address social inclusion of people with mental concerns in VCPS telepsychology campaign.

2.8 Summary

A review of the literature revealed that stigma is a major component of why people often avoid seeking mental health care. Currently, organizations and countries around the world have been implementing campaigns or reforms in an effort to reduce the amount of stigma surrounding mental health, and ensure that people living with mental illness are comfortable seeking help.

Chapter 3. Methodology

The goal of this project was to improve knowledge of, and access to, mental health care in regional areas of Australia, by making evidence based recommendations for VCPS' telecommunication service, *Chinwag*. To accomplish this goal, the team's objectives were to:

1. Analyze differences in attitudes towards mental health services between regional and metropolitan Australians
2. Solicit and compile content for the *Chinwag* website
3. Evaluate social network that would be appropriate for increasing publicity of, and engagement with *Chinwag*

In order for the team to complete these objectives, a variety of strategies were used, including surveys, interviews, and observations. Below, specific methods are described that applied to each of the objectives noted above.

Modified Participant Observation

To understand what patients experience when accessing mental health services, the team partook in modified participant observations. Each team member arranged to experience the check in process and participate in a counselling session with a mental health professional. Modified participant observations are frequently used to gain insight into others' ideas or beliefs (Ward, 2014).

3.1. Analyze differences in attitudes towards mental health services between regional and metropolitan Australians

In order to explore the experiences of those living with mental health disorders, interviews were conducted with people living in Colac and Warrnambool and site observations were performed to determine the number and types of services available in these towns.

3.1.1. Site Observation

While traveling through Colac and Warrnambool, site observations were conducted to determine the number and types of health services available to the public. All public and private practices were considered, and specialties were noted. These included GP offices, hospitals, clinics, and psychological centers.

3.1.2. Survey

Surveys were conducted in order to learn about the differences between the people living in regional areas of Victoria and those living in metropolitan areas. The surveys were designed to include short multiple choice questions regarding the participants' opinions on mental health. Short surveys were particularly of interest, since they have been shown to have higher completion rates than long surveys, which could increase our sample size and therefore increase the accuracy of data collected (National Research Council, 2013). The surveys were distributed in-person to people on the street and in public places around Colac and Warrnambool. The intent was to survey at least 40 residents of regional Australia. Participants received codes that correspond to their data entries in the event that they chose to withdraw their responses. The results were analyzed for potential differences between regional and metropolitan regions. For examples of the informed consent form and the social network survey, see Appendix A and B.

3.1.3. Interview

Semi-standardized interviews were conducted with the consent of residents of Colac and Warrnambool to gain an understanding of their perceptions and experiences with mental health services. By utilizing the semi-standardized interview format, a set of prepared questions was developed to interview the participants, while the ability to ask unplanned follow-up questions was retained. These additional questions allowed the team to obtain additional information (Berg & Lune, 2012). A trip was planned with two VCPS staff members to travel to Colac and Warrnambool to reach interviewees. Audio recordings were used to document the interviews which were then stored on a password encrypted file in a smartphone. Participants received codes that were used to identify their recordings, and allowed for the easy removal of their data if they requested. No personal data was tied to the audio recording. The recordings were destroyed after capturing the data needed for the study. A sample informed consent form and a sample interview guide can be found in Appendix A and C.

Semi-standardized interviews were conducted with two of VCPS' external consultants, John Smith and Dianne Hobday, regarding the *Chinwag* project. Both have worked in the health services of West Wimmera, and lived in regional Australia for many years, making them very knowledgeable about these areas. The interview questions are included in Appendix D.

3.2. Solicit and Compile Content for the *Chinwag* Website

In order to contribute to VCPS' telecommunication service, *Chinwag*, the team gathered content for the website, determined stakeholders' likes and dislikes about the service, and

incorporated *EasyHealth*'s content into the *Chinwag* website. Interviews and usability testing were used to gather this information.

3.2.1. Interviews

Semi-standardized interviews with GPs in Colac and Warrnambool were scheduled to determine what additional information is needed to be included in the *Chinwag* website to best serve the GPs and people in regional areas. With the consent of the interviewees, audio recordings were used to document the interviews and were stored on a password encrypted file in a smartphone. Participants received codes that were used to identify their recordings, and allowed for the easy removal of their data if requested. No personal data was tied to the audio recordings, which were destroyed after collecting the information needed. A sample informed consent form and a sample interview guide can be found in Appendix E and F.

Additionally, semi-standardized interviews with VCPS personnel involved with *Chinwag* were conducted in order to gain a better understanding of what content should be included in the website and how to properly format it. Particularly, VCPS' website designer Don Steele was interviewed, who helped the team start gathering content for the *Chinwag* website. The interview questions can be found in Appendix G.

3.2.2. Usability Testing

The team hosted usability testing⁶ sessions with individuals who were not familiar with the website. During these session, participants piloted the *Chinwag* website. They were instructed to bring a laptop, tablet, or smartphone device so that they could explore the website. A set of tasks were prepared for the participants to accomplish while exploring the website. They were asked to talk through their experience as they completed each task. One team member acted as a moderator, helping the participant through any problems they encountered, and was responsible for recording audio of the discussion; and one other team member was responsible for taking notes as the participant explored the website. Figure 3 describes the session format.

⁶ Usability testing refers to the technique where user centered software is evaluated through tests done with potential users (U.S. Department of Health and Human Services, n.d.).

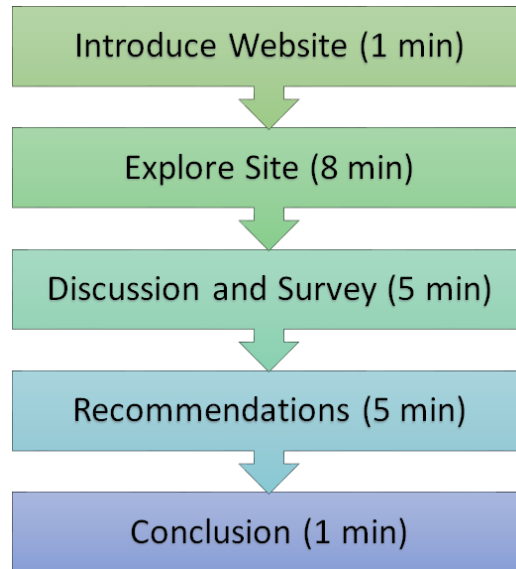


Figure 3. Format for usability testing.

As illustrated in Figure 3, the first part of the testing introduced the goal of the *Chinwag* website. Afterwards, the guests were given time to accomplish the indicated tasks and freely explore the site. They were encouraged to discuss their thoughts and give recommendations. The usability testing took about 20 minutes. A sample informed consent form, tasks, and survey can be found in Appendix H, I, and J, respectively.

3.3. Evaluate appropriate social network strategies to increase publicity and engagement of *Chinwag*

To evaluate and determine the various strategies the social network campaign can use to best provide material and information to the target audience, the team proposed to conduct surveys, site observations, and content analysis. Both quantitative and qualitative data on the target audience's use of social networks was obtained.

3.3.1. Survey

Surveys were conducted in order to learn about the types of social networks that are used by people living in remote regions of Victoria. The surveys were designed to include short multiple choice questions regarding the participants' use of social networks. Short surveys were used once again due to their high completion rates, as stated previously (National Research Council, 2013). The surveys were also distributed in-person to people on the street and in public places around Colac and Warrnambool. Additionally, they were sent to participants online using the snowball sampling method through VCPS' affiliated personnel and anyone who shared an

email address, and were posted on VCPS' Facebook and LinkedIn page. The intent was to survey at least 40 residents of regional Australia. Participants received codes that correspond to their data entries in the event that they chose to withdraw their responses. The results were analyzed for potential patterns in types of social networks that are used. For examples of the informed consent form and the social network survey, see Appendix K and L.

3.3.2. Site Observation and Content Analysis

The team visited practices and clinics in regional locations in order to observe how they raise awareness of mental health services and distribute information. Patterns in the types of social networks that are used to promote mental wellness in other outreach programs were evaluated using conventional content analysis (Ward, 2014). Examining the types of social networks, such as Facebook, Twitter, and Instagram, used by people in regional locations gave the team a better understanding of what content would be included in social network advertisements to better target regional residents. The team researched social media marketing. Content, format and aesthetic were foci during this research.

Chapter 4. Results and Discussion

4.1. Results

The team of WPI students gained an understanding of what clients experience in counselling sessions by partaking in modified participant observations. Through the completion of site observations, surveys, and interviews with citizens in the towns of Colac and Warrnambool, insight was gained on the differences between regional and metropolitan Australians. Interviewing GPs, directors, and practice managers, and conducting usability tests enabled the team to gain an understanding of what content should be included in the *Chinwag* website and social network profiles. Surveys and site observations in regional areas of Australia, as well as content analysis, provided more information about the types of social media used by Australians living in such areas.

Modified Participant Observations

Each team member engaged in modified participant observation by partaking in a counselling session individually with a staff member of VCPS. Each individual was redirected to the VCPS intake team, which is responsible for engaging with and supporting all first time clients in order to set up their first session.

The appointments were requested to be with Annika, one of VCPS' provisional psychologists, as suggested by Natasha Ace. The intake team took note and asked a few additional questions, such as the reason for setting up the appointment, so the psychologist would have some information prior to the session. They also asked if anyone was referred to Annika by a GP, in order to see who would qualify for Medicare rebates.

Next, the intake team discussed Annika's background and the expected price of the session. After making sure there were no further questions, they took payment information and explained that there was no charge until the appointment, but it was required in case of cancellation. After the original phone call to set up the session, emails about the appointments were sent out, as well as text message reminders on the day of the appointments. Three of the four sessions were in-person and one was completed via video conferencing.

In each of the sessions, Annika began by explaining her role as a provisional psychologist and talking briefly about the aim of the session. Most of the team went into the session with a faux mental health concern, such as anxiety and insomnia, which caused each session to be slightly different depending on the concern. In each session, Annika tried to figure out what the root of each concern was by asking about the concern's effect on certain aspects of each individual's life, their feelings towards it, and further problems that possibly arose from it. It was

also noted that she used diagrams to explain some of the issues that were discussed. At the very end of the session, Annika talked about setting up a follow up session. She explained the Medicare rebates and the need for a GP referral to access those. She also briefed each individual about what future sessions might involve, such as determining the problem and then later focusing on treatment. Lastly, she answered any additional questions each individual had before ending the session.

4.1.1. Differences Between Regional and Metropolitan Australians

While driving to regional areas of Australia, the team performed site observations. It was noted that there were few health services, including general health practices and specialists' offices. This finding was also confirmed through interviews, and from speaking with residents of these areas. While traveling through regional locations in Australia, it was noted that there were practically no primary health facilities with even fewer locations specializing in mental health support. However, when the team visited practices and clinics in Colac and Warrnambool, they noticed that the waiting rooms were busy. From speaking to practice managers, it became clear that most of the general practitioners' schedules are heavily booked. Overall, site observations indicated that there are very few mental health services available to the public in remote areas.

Additionally, during the trip the team surveyed 41 residents of Colac and Warrnambool regarding their views on mental health. The survey data showed that 46% of participants find maintaining emotional health is extremely important, 49% very important, and 5% moderately important. When asked about their thoughts on maintaining physical health, survey takers stated, on average, that it was less important than maintaining emotional health. In fact, only 34% of residents of Colac and Warrnambool said that maintaining physical health is extremely important, 51% very important, 12% moderately important and 3% slightly important. A comparison between emotional and physical health importance is shown below in Figure 4.

How important is it for you to maintain good emotional health vs. physical health?

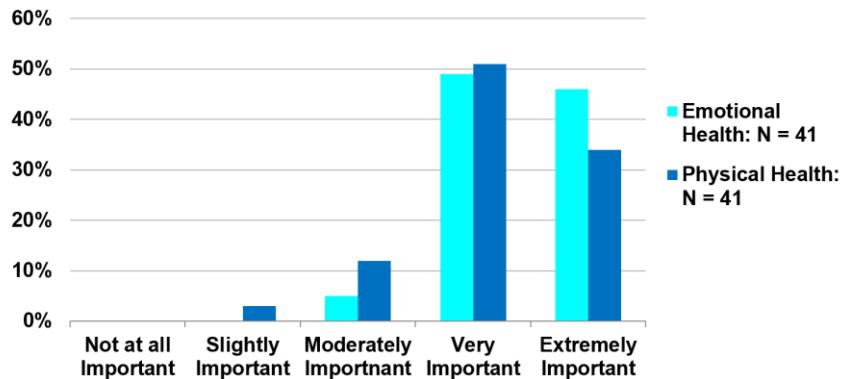


Figure 4. Importance of emotional and physical health

Of the participants who responded to the mental health survey, 98% claimed that they would seek help during difficult times, yet only 22% said that they would be very likely to consult a mental health specialist. Of the remaining participants, 20% were somewhat likely to consult a mental health specialist, 20% were neither likely nor unlikely, 34% were somewhat unlikely and 5% were very unlikely. This data is presented in Figure 5. Additionally, only 22% of the survey respondents had seen a mental health specialist within the last year. Since VCPS aims to make mental health care a part of citizens’ ordinary self-care, it would be preferred if all Australians had seen a mental health specialist in the past year for a mental health checkup. However, 98% claimed that counseling can help people through difficult times in life. Results of all mental health surveys conducted can be found in Appendix M.

How likely are you to go visit a psychologist or counselor?

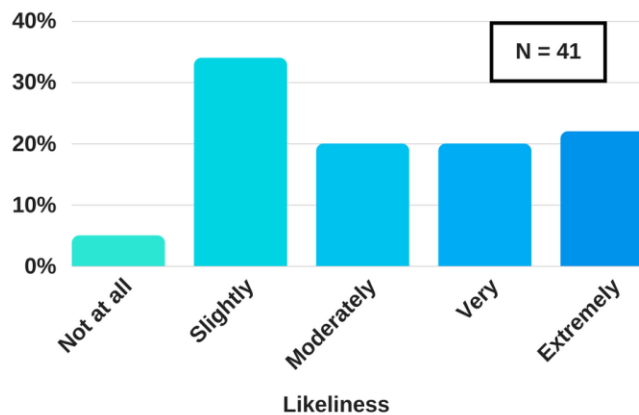


Figure 5. Likelihood to seek mental health services

In addition to the mental health survey, the team conducted interviews with two regional Australians while visiting Colac and Warrnambool. The first interviewee was an older male resident of Colac (ID 15009). He was retired and lived in public housing. At first he was asked to take the mental health and social media surveys, then upon speaking with him further, he agreed to answer a few questions. He gave consent for the interview to be recorded. His responses made his opinions on mental health clear. In summary, he wasn't entirely sure what mental health meant, or how someone is diagnosed with a mental health concern. He seemed to feel betrayed by the Australian government for "letting people use the system" for mental health services, yet not allowing him a Disability Support Pension for his physical condition (suffered five heart attacks). He went on to say, "Professionals need to be held accountable," implying that health care practitioners are not solving the root of their patients' concerns. In other words, mental health cases go unaddressed even when the person is receiving help, which he felt needs to change. For example, he felt that when someone with a physical condition goes to an expert, they are "fixed" immediately, unlike mental health conditions which might be treated over a period of 20 years, with little to nothing to show for it. In his opinion, the government was consistently at fault for allowing people to use taxpayer funding without actually bettering themselves, and for enabling health care practitioners to diagnose mental health disorders without actual evidence of a disorder. He recognized that he held a stigma towards people with mental health issues for these reasons, and partially due to his lack of understanding of mental illness. He mentioned that although he has bad days, he wouldn't consider himself to have ever experienced a mental health condition. He also tied lack of experience with mental health issues to decreased likelihood to show sympathy towards those who do have them. Overall, the interview gave an alternative perspective on mental health in regional Australia.

The second interviewee was a middle-aged female resident of Colac (ID 77021). She was approached while working in a small shop, where she was invited to take the mental health and social media surveys. While completing the surveys, she mentioned she was also a nurse who worked in both regional and metropolitan practices. She agreed to answer a few questions, and gave her consent to be recorded. Her opinions on mental health varied from those of the first interviewee drastically. Due to her past experiences, she had a working understanding of mental health and mental illness. She thought people, in general, were becoming more aware and understanding of mental health issues. Overall, she felt that in the past 20 years or so, the stigma surrounding mental health has decreased a lot, and mental health issues are now being accepted as health conditions. During the interview, she stated that she was personally affected by depression and anxiety at one point in her life. However, she learned to talk about it, which made

it easier for her to cope with her depression and anxiety. She learned to live with it, and was not referred to a specialist. She seemed to look at mental health in a very positive light.

4.1.2. *Chinwag* Website Content, Interview Based Assessments

While the team was visiting the towns of Colac and Warrnambool, they interviewed seven health care professionals, consisting of a mixture of GPs, directors, and practice managers from various clinics in those areas. In Colac, the following health care professionals were interviewed: Miffy Shelton, the practice manager at Corangamite Clinic; and Marg White, director of community services at Colac Area Health. While in Warrnambool, the team met with the following: Dr. Archie, a GP at Southwest Clinic; Deb, a practice nurse at Cambourne Clinic; Stacey Cowell, a worker at Wellways Health Center; Jeff, from the Headspace Center in Warrnambool; and Alistair Ross, practice manager at the Warrnambool Medical Clinic. Before each interview, all of the professionals were briefed about VCPS and the services offered by *Chinwag*. The team then proceeded to start the recording and asking questions.

Of the seven interviews, every professional interviewed stated that they felt *Chinwag* could have a place within their practice. Four interviewees felt that *Chinwag* could contribute to the lack of weekly appointments available with local specialists (specifically in areas outside of Colac and Warrnambool) and three said it would decrease the overall wait time for a psychology session. Four of the professionals also said that the service would be extremely useful for those living further outside of the areas of Colac and Warrnambool, where they might not get as good access to healthcare. Three of the professionals claimed that younger people would be more open to making use of the service, since they are more tech savvy and quick to adapt to services offered through the internet. Although they mentioned that the older population may not engage with the service as much, some professionals, like Alistair Ross, expressed interest in working with these individuals to enable them to use such services. This included giving them a computer and private room where they could perform the video call. Six professionals stated that their clinics were making use of telehealth services. One example of such a service is the stroke telehealth service that Colac Area Health uses in conjunction with their sister hospital, Barwon Health. Three interviewees also mentioned that the anonymity provided by *Chinwag* might remove a barrier keeping people from seeking help.

While the professionals had a lot of positive feedback about *Chinwag*, they also had some concerns. For example, Marg White was concerned about how much business *Chinwag* would take away from the specialists in the area. Additionally, three other specialists stated that they were concerned that they would not be kept informed about their patients' progress while they were using *Chinwag*. Dr. Archie specifically talked about how they may not hear from the telehealth professional for 4-5 sessions, only to learn months later from their patient that

treatment was never completed. A table recapping the pros and cons collected through interviews can be seen below in Table 2.

| Pros | Cons |
|--|--|
| <ul style="list-style-type: none"> ● Help with lack of available appointments with local specialists ● Decrease wait time for psychological sessions ● Timeliness of scheduling appointments ● Anonymity ● Younger people more open to using telepsychology | <ul style="list-style-type: none"> ● Local psychologists will lose business ● Willingness and ability for older population to use telepsychology ● Communication between telehealth psychologist and GP/ local psychologist |

Table 2. GP/practice manager feedback on *Chinwag*.

With regard to anything that *Chinwag* could provide to the professionals interviewed, three expressed interest in receiving a short video explaining how *Chinwag* works. They thought this would be useful when showing and explaining the service to their colleagues. Additionally, two of the people interviewed said that it would be beneficial if the service offered meetings times with a practitioner outside of the normal working day (9:00 AM-5:00 PM).

Usability testing of the *Chinwag* website enabled the team to gather concerns and potential improvements from potential website users. Seven people participated in the testing. The average rating for the layout and ease of use of the website on the usability testing survey was very good (rated at 4). The average rating for the information about *Chinwag* and mental health was excellent (rated at 5). Every participant found it easy to accomplish most of the tasks they were asked to complete. However, there were a few tasks that revealed some concerns. It was noted that the, “Why are you here,” title in the heading was not specific to what the actual page contains. As a result, many of the participants had trouble accomplishing the task that required them to find the mental health concerns regarding someone’s child. Additionally, many of the participants were confused by the filters on the Our Team page. They thought, “Filter by difficulty,” meant the difficulty level of the practitioner and, “filter by age,” meant filter by the age of the practitioner. Overall, all the participants thought that the website was appealing and looked professional. Findings and suggestions from these tests can be found in Appendix N.

4.1.3. Social Network Strategies

In total, 41 surveys on social media usage were completed by residents of regional Australia. Of those, nine took the survey via the link posted on VCPS’ Facebook and LinkedIn pages and 32 were surveyed in-person in the towns of Colac and Warrnambool. It is important to

note that participants were not given a full definition of any terms used within the survey unless requested, so answers are based on their own definitions of the terms.

Participants were asked to select up to three ways they gather information and news. In Figure 6, the results show that 67% of all the individuals use the internet, 55% watch television, and 28% read the newspaper to gather information and news. Moreover, as shown in Figure 7, when the 41 survey takers were asked to choose what social networks they used, it was found that the two most popular social networks are Facebook, with 75% of participants saying they use it regularly, and Instagram, with 51% of participants saying they use it regularly. When considering the purpose of social networks, participants primarily stated that it is used for networking, spreading information, and staying in contact with people, among other less commonly noted uses. However, some people also argued that it is a waste of time. Additionally, one survey taker claimed that they do not use social networks because they do not feel the need to share information with anyone.

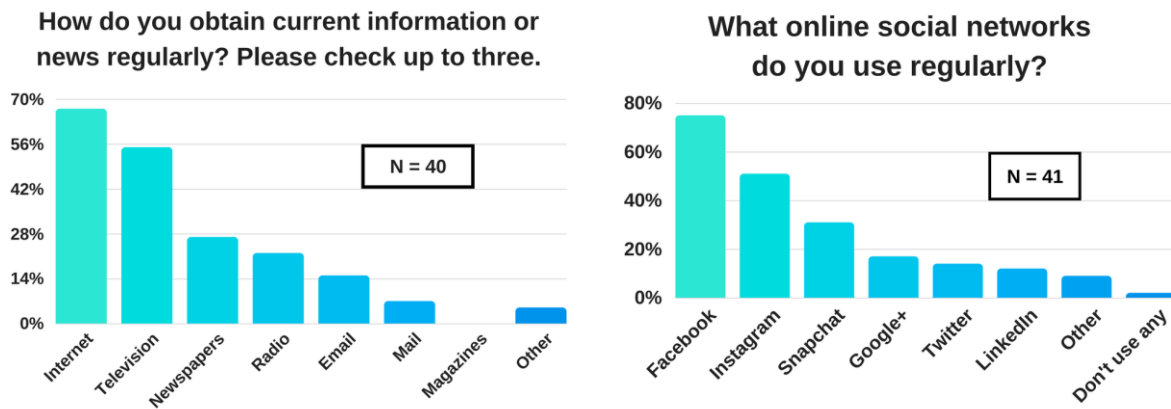


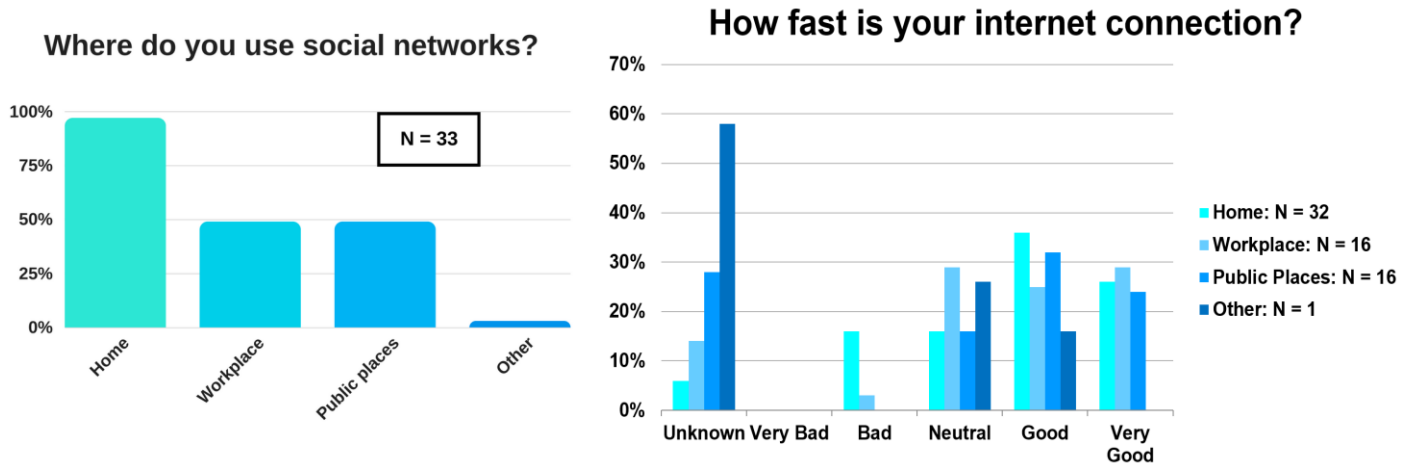
Figure 6 (L) and 7 (R). Ways news is obtained and social networks that are used in regional Australia, respectively.

As shown below in Figure 8, 97% of the survey takers that use social networks claimed that they use social networks at home. Furthermore, 48% of those participants claimed to use social networks at work and in public places.

Internet Connection and Social Networking Use Location

When asked to rank their internet connection in these places, 36% of participants said that the internet connection at home was good (fast) and 26% said it was extremely good (very fast). However, 16% of participants declared that it was bad (slow or not as fast as they would like it to be) and an additional 16% said that it was average (acceptable speed). The remaining

6% did not know. Moreover, when participants were asked to rank their internet connection at work, 29% of participants claimed that it was extremely good and 29% claimed that it was average. Of the remaining participants, 25% said that their internet connection at work was good, 3% said it was bad, and 14% did not know. Of those who took the survey, 26% said that their internet connection in public places was average, 16% said that it was good, and 58% did not know. This data is presented in Figure 9.



Figures 8 (L) and 9 (R). Places of use of social networks and internet connection perceived quality, respectively.

Advertising and Social Network Posts

The team visited various locations in Colac, Warrnambool, and Timboon in order to complete site observations and content analysis. Different posters and advertisements in locations such as medical practices, cafes, and stores were observed. These posters and advertisements often mentioned a social network to go to for more information or general events. The team visited these social networks and analyzed the content to see if there were similarities in the wording or types of social media being displayed. More attention was given to social media posted by health organizations which related to the content that would be shared on *Chinwag* accounts. It was found that motivational posts are shared frequently by Instagram users. Additionally, it was determined that in order to make social media profiles more appealing to viewers, posts should alternate between pictures and quotations. See Appendix O for responses to all social media survey questions.

4.2 Discussion

Modified Participant Observation

During the modified participant observations each team member gained an understanding of how clients calling VCPS for the first time might feel. This gave insight on how to address clients' concerns, and how to talk to people about sensitive topics such as mental health, and general information about VCPS. Setting up one teleconference session was also useful in recognizing the differences between meeting in-person and meeting via the internet. Meeting in both ways showed that the teleconference session was different from those in-person in that internet connectivity became an issue, whereas in-person sessions enabled the client to feel constantly connected to their counsellor.

4.2.1. Differences Between Regional and Metropolitan Australians

Site observations showed there is a need for easier and faster access to mental health services in regional Australia. Since both of these issues are directly addressed by the *Chinwag* service, this was considered an opportunity for *Chinwag* to expand its influence. The need for a service such as *Chinwag* was also reinforced by the data and interviews since it was evident that practices and clinics need additional support services in order to provide clients with more immediate care, as these facilities in regional areas are busy.

The differences between regional and metropolitan Australians' attitudes towards mental health became obvious upon analyzing the mental health survey and comparing the responses to the survey conducted by a group of WPI students in spring of 2017, which focused on a subpopulation of the metropolitan area- students from Melbourne University. The 2017 survey results provided by the previous WPI group gave the team an understanding of attitudes on mental health held by metropolitan residents. These rankings are based on participants' own definitions of the terms used within the survey, as they were not given a full definition of any term unless requested.

By comparing responses to similar questions on separate regional and metropolitan surveys, it was possible to identify some differences between regional and metropolitan Australians. Specifically, emotional health⁷ seems to be more important in regional areas than in metropolitan areas, as 10% more respondents in regional areas said it was very important or extremely important compared to metropolitan areas as seen below in Figure 10. The mean score of emotional health importance of regional Australians ($M = 4.41$, $SD = 0.59$) was not

⁷ Emotional health is defined as a positive sense of wellbeing which enables an individual to be able to function in society and meet the demands of everyday life.

statistically different than the mean score of emotional health importance of metropolitan Australians ($M = 4.33$, $SD = 0.68$), $t(91) = -0.66$, $p = 0.51$ ⁸, two-tailed test. Various methods are used to test Likert-type data⁹, however the “best” method is a subject of constant controversy among statisticians, due to this data’s ordinal characteristics (Frost, 2016). Many statisticians agree that there is no superior method, as there is no way to interpret and translate individuals’ responses to a question, which they themselves had to interpret, and then assign the response a precise cardinal value to compare to the other responses- essentially assigning qualitative data with a quantitative value (Messing, 2014). Those who share this view believe the tests all tend to return the same results, however there is no way to determine if these results hold any true importance, as they are based on results that have no numerical meaning. In other words, none of the tests provide the “best results.” Therefore, according to Frost, Messing, and Gorard, due to the Likert characteristics of the data found in the mental health survey, it is nearly impossible to definitively determine the results’ significance (Gorard, 2015).



Figure 10. Comparison of emotional health importance between regional and metropolitan Australians.

As shown below in Figure 11, of those who took the survey, 21% more respondents in regional areas thought physical health was very important compared to those in metropolitan areas. However, the mean score of physical health importance of regional Australians ($M = 4.17$, $SD = 0.74$) was not statistically different than the mean score of physical health importance of

⁸ M refers to the statistical mean, SD refers to the standard deviation, t refers to the t value and p refers to the p value for statistical significance.

⁹ A Likert scale is a method of ascribing quantitative value to qualitative data, to make it amenable to statistical analysis. An example of a Likert scale has five potential choices, such as: strongly agree, agree, neutral, disagree, and strongly disagree.

metropolitan Australians ($M = 4.12$, $SD = 0.83$), $t(91) = -0.34$, $p = 0.74$, two-tailed test. As stated previously, due to the Likert characteristics of this data, it is difficult to conclusively determine the significance of the results.

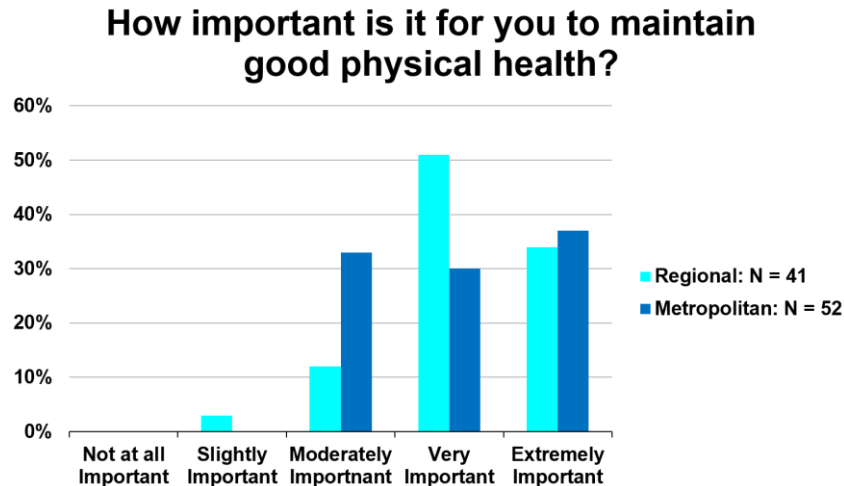


Figure 11. Comparison of physical health importance between regional and metropolitan Australians.

Overall, there was not a large difference in opinion regarding whether a mental health specialist would help during difficult times between regional and metropolitan residents. This statement is supported by analysis that showed that the mean score of mental health care importance of regional Australians ($M = 0.98$, $SD = 0.16$) was not statistically different than the mean score of mental health care importance of metropolitan Australians ($M = 0.98$, $SD = 0.14$), $t(91) = 0.17$, $p = 0.87$, two-tailed test. It is interesting to note that a small portion (2%) of the regional area survey takers did not think specialized help would be beneficial, while no one (0%) surveyed in metropolitan areas marked choices that suggested specialists would not be helpful.

Presented below in Figure 12, the number of people who visited a mental health specialist within the past year showed very little difference between regional and metropolitan Australians. Specifically, analysis of the results showed that the mean score of number of visits of regional Australians ($M = 1.59$, $SD = 1.26$) was not statistically different than the mean score of number of visits of metropolitan Australians ($M = 1.86$, $SD = 0.99$), $t(61) = 0.89$, $p = 0.38$, two-tailed test. Additionally, as shown on the next page in Figure 13, 35% more regional survey takers thought they were somewhat likely or very likely to seek help from a specialist compared to Melbourne students. However, the mean score of likelihood to visit a mental health specialist of regional Australians ($M = 3.20$, $SD = 1.27$) was not statistically different than the mean score of

likelihood to visit a mental health specialist of metropolitan Australians ($M = 3.13$, $SD = 1.20$), $t(69) = -0.21$, $p = 0.84$, two-tailed test. Statistical analysis of results can be found in Appendix P.

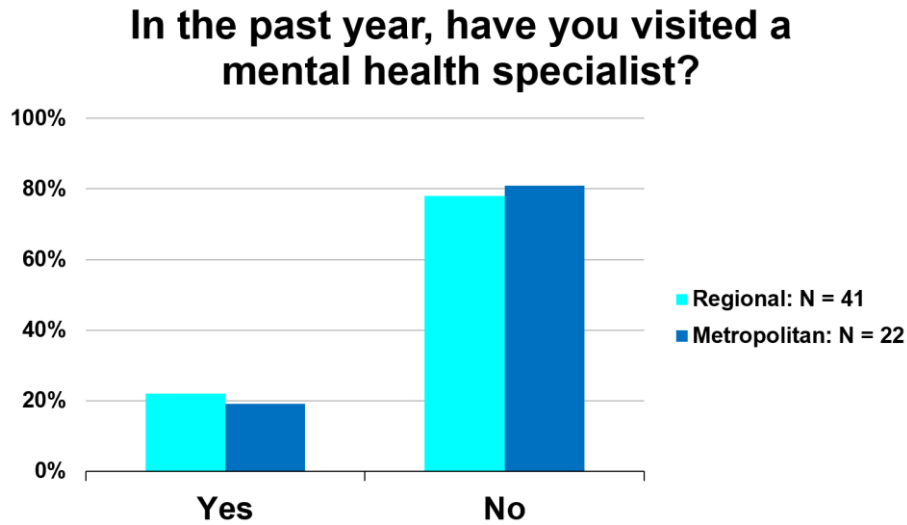


Figure 12. Comparison of mental health service use between regional and metropolitan Australians.

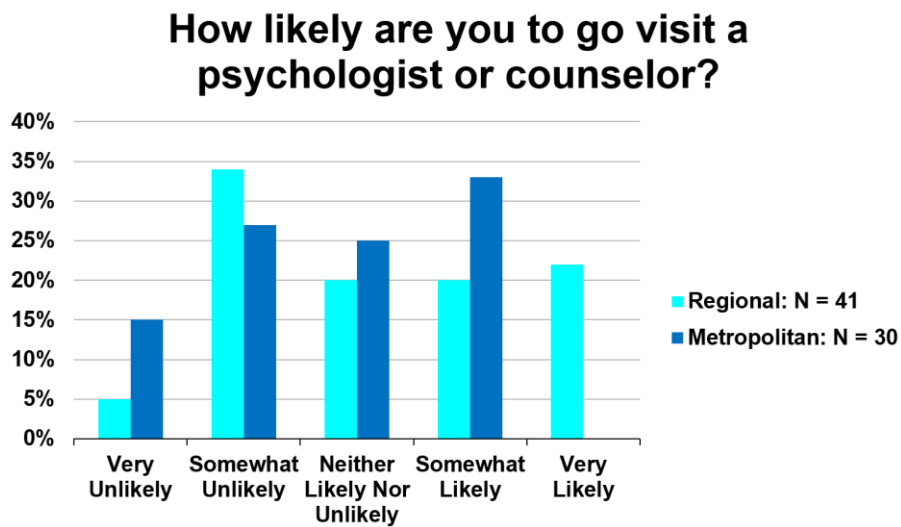


Figure 13. Comparison of likelihood to seek help from a mental health specialist between regional and metropolitan Australians.

In summary, the survey suggests that regional Australians appeared to be more willing to utilize mental health services than the survey takers from metropolitan Australia. The team only collected data from two towns with a combined total population of about 46,000, therefore the

necessary sample size to accurately represent these areas would be 381¹⁰. The comparisons were not statistically significant which could be due to the small sample size (N= 41), or it could prove that there are not many differences between regional and metropolitan Australians' attitudes of mental health. It is possible that both groups have opinions that are more similar in this regard, than what is perceived by the general public. Nevertheless, these comparisons still provide a baseline comparison of what the differences or similarities could be between regional and metropolitan Australians regarding mental health.

There were also differences among the attitudes of residents of regional areas themselves. These became clear once the regional interviews were analyzed. One interesting difference between the two regional interviewees was in regard to accessibility of mental health services. While the first interviewee thought there was a lack of specialists for people to access mental health care in a timely manner in regional Australia, the second interviewee actually thought regional areas have more accessible help than metropolitan areas. Another difference between the two regional interviewees was their general feelings towards mental health. The first interviewee had little understanding of mental health concerns and no sympathy for those experiencing them. It is likely that the first interviewee is not the only person in regional Australia who carries such views, considering the sample size was so small. Of the two randomly chosen people the team interviewed, one of them had extreme ideas on mental health, which may suggest that there are others in the area with the same opinions. These differences may also suggest that attitudes toward mental health are more reliant on knowledge than location. However, location may affect residents' access to education on mental health.

4.2.2. *Chinwag* Website Content

By interviewing GPs, directors, and practice managers, the team learned how important the use of *Chinwag* may be to regional Australians. A majority of these interviewees were interested in hearing more about the *Chinwag* service, and lauded the potential it had to help regional Australians. They specifically mentioned that the anonymity the service provided and timeliness of the scheduling would encourage people to seek mental health services. However, they also expressed a few concerns, including:

¹⁰ The estimated sample size for future surveys was found based on the combined population of Colac and Warrnambool. The following information was entered into Raosoft, a sample size calculator to mathematically determine the sample size for this population: population= 46,000; margin of error= 5%; confidence level= 95%; response distribution= 50%. Sample size is largely dependent on confidence level, so decreasing confidence level by 5% would decrease the sample size to 269, however the resulting sample may not represent the population as accurately.

- Local psychologists and specialists losing business to *Chinwag* clinicians
- Willingness and ability to use telecommunication/ telehealth technology by the older demographic in the region
- Communication between the telehealth psychologist and GP/ local psychologist

By hearing about these concerns, the team was able to determine information that would be useful to put on the *Chinwag* website in order to answer common questions GPs would likely have. These concerns were also useful to the intake team, who were responsible for answering GPs questions when they called. By knowing some of the common questions ahead of time, they were better prepared with answers and could therefore make better use of the time they had to talk to the GPs about *Chinwag*.

Usability testing was conducted after all major changes were made to the website to ensure the website was user friendly. Participants' feedback helped to improve the client experience on the website. Usability testing enabled the team to make any changes to the website that were considered to be significant. Many of the minor issues found while testing the website were fixed immediately, including accuracy of pictures and wording for text. Since these tests were completed late into the project, there was little time to correct some of the issues recognized by survey takers. Therefore a list of the major difficulties participants had while navigating through the website were reported to VCPS for consideration by future groups working on *Chinwag*.

4.2.3. Social Network Strategies

After analyzing the responses to the social media survey, it was determined that Facebook and Instagram are the two social networks that are most used on a regular basis by regional Australians. Each is used by more than half the people who took the social media survey, so the team focused on these two social networks to advertise *Chinwag*.

An Instagram and a Facebook account were created that are used to promote and inform the public about the *Chinwag* service. Posts were designed on an online graphic design tool website, *Canva*. Content ranged from general information about mental health to motivational quotes. The posts provide general information on mental health to increase the user's knowledge about mental health and reduce the stigma surrounding mental health, thereby making people more comfortable seeking help. While providing such general information is important to increase the public's awareness and knowledge of mental health, motivational quotes were used since they are popular posts for users to share on social media. These posts will increase the number of people visiting the *Chinwag* page. In addition, posts with information about *Chinwag* and VCPS were created to familiarize the pages' visitors with the services offered and urge them

to visit the *Chinwag* and VCPS websites to learn more and book appointments with mental health professionals.

Chapter 5. Deliverables

For this project, various deliverables were created for VCPS' use and promotion of *Chinwag*. These include a comparison report for VCPS' management and *Chinwag* development teams, pages on the *Chinwag* website, an informative video for GPs, and social media accounts and posts specific to *Chinwag*. These deliverables sought to improve *Chinwag* in various ways by providing VCPS with insight on regional Australians' perceptions of mental health, as well as supplying clients with ways to learn more about the service.

5.1. Comparison Report

After comparing the regional mental health survey responses to metropolitan responses from a previous survey with similar questions, and analyzing interviews conducted with randomly chosen regional residents, the team was able to create a separate report for VCPS describing the findings of the project as a comprehensive deliverable to VCPS. The report contains a detailed summary of the survey results, along with a comparison to the metropolitan responses. A case study outlining the two interviews was also included. The report was presented to VCPS' management and *Chinwag* development teams in order to:

1. Provide an idea of what the student team worked on and accomplished during the project
2. Exhibit regional Australians' attitudes on mental health and how they differ from those of metropolitan residents
3. Demonstrate the varying opinions on mental health within regional areas

The report was requested by VCPS for reference as they continue to move forward with *Chinwag* after the team returns to the United States.

5.2. *Chinwag* Website

Contributions to the *Chinwag* website were another deliverable for VCPS. Following the interviews with GPs and practice managers, the team worked with VCPS' web designer, Don Steele, to help further the development of the *Chinwag* website. Initially, Steele created a splash page for the *Chinwag* website with basic information. This allowed anyone that was interested in *Chinwag* to gain general knowledge about the mission of the service. Steele also developed the basic design of the website and some of the initial features, as seen in Figure 14.

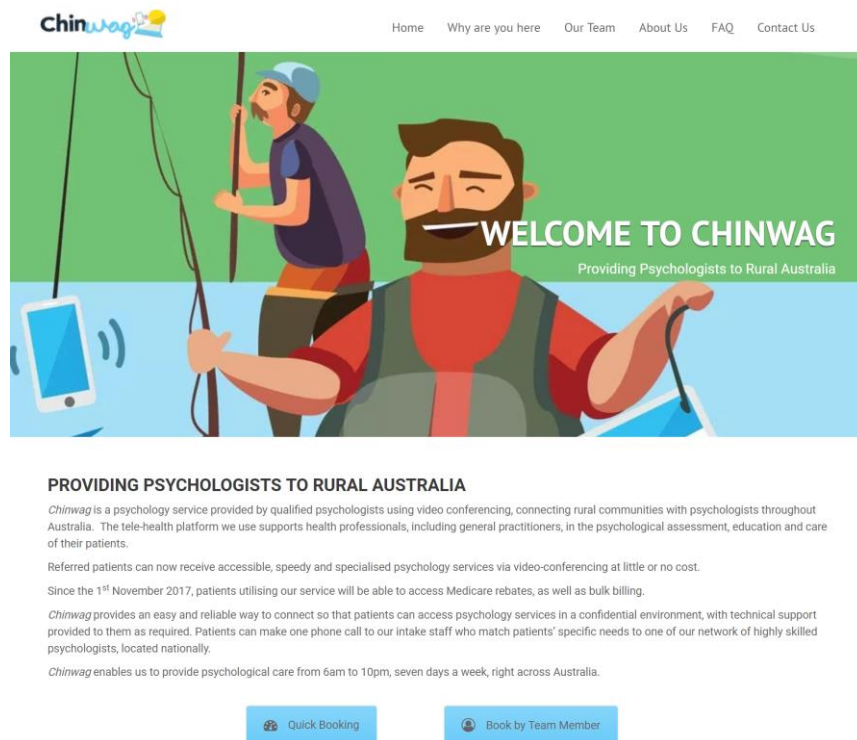
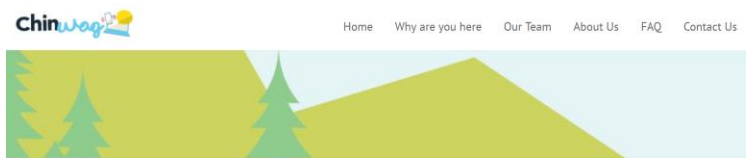


Figure 14. *Chinwag* homepage


The team was given access to the website in order to make edits and add content to it. After thoroughly reviewing the website design and composition, the team provided suggestions to Natasha Ace, Pana Maliadis, and Steele with regard to the website content. After discussing these suggestions, content was compiled for multiple pages including the *About Us* page and the *FAQ* page. Additionally, material was collected and pages were created for all the mental health concerns addressed by the practitioners involved with *Chinwag*. The team then assembled the content and developed pages for these practitioners, shown in Figures 15 and 16.



Filter by Difficulty

Filter by Age





Dr. Aude Plontz
Consultant Psychologist
MPsych, PhD, MAPS.

I provide support to individual clients, couples, and families finding their way through a broad range of issues; from clients curious about how to bring more vibrancy or awareness into their lives, to clients struggling with entrenched feelings of depression or anxiety.

In my work, I uphold values of evidence-based and person-centred practice. I invite my clients to work with me in a collaborative manner from a humanistic perspective, exploring their personal choices and inner experiences with respect and sincerity and striving to adapt my approach to my clients' preferences. I view psychological counselling as a process aimed at facilitating change in not only observable behaviours and habits of thinking, but also more fundamentally in what could subjectively be experienced as deep emotional or existential shifts. The main counselling methods I utilise are Cognitive-Behavioural Therapy (CBT); including exposure, relaxation, & mindfulness - based strategies, Acceptance and Commitment Therapy -ACT, and Schema Therapy) and Emotion-Focused Therapy. I also use interventions from Feedback-Informed Therapy, Narrative Therapy, Sensorimotor Psychotherapy, Solution Focused Therapy, or Hypnotherapy.

Fees
50 minute consultation: \$200.00

For more information on:

- Medicare rebates
- Reduced fees/bulk billing
- Assessments and reports
- Non attended session fees

Please call Chinwag on 1300 244 692

My areas of special interest include:

- Chronic, entrenched, or pervasive feelings of depression or anxiety
- Obsessive and compulsive symptoms
- Trauma and abuse (including emotional abuse and other forms of relational trauma)
- Life transitions (including grief & loss, pregnancy and birth)
- Interpersonal difficulties (including work with couples)
- Clients with a culturally and linguistically diverse background (including clients with a refugee background or French or German-speaking clients)

Book an appointment
 Use this form below to make a booking with this practitioner.

Name (required)

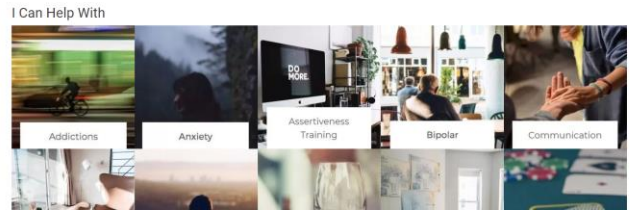
Email (required)

Phone (required)

Practitioner (required)
Dr Aude Plontz

Message

I'm not a robot



Figures 15 (L) and 16 (R). *Chinwag* “Our Team” page and *Chinwag* “Practitioner Profile” page, respectively

The information and pictures used were compiled from the current VCPS website, the business and operations managers (Pana Maliadis and Natasha Ace), the director (Robert Luzza), and the analysis of interviews and usability testing. Content from *EasyHealth*, the website created by a previous WPI team who worked with VCPS, was incorporated into the *Chinwag* website. These tasks were completed in about 2-3 weeks in order to get the website public. The website was officially made public on the 8th of December while some minor edits were still being incorporated.

5.3. *Chinwag* Informational Video



Figure 17. *Chinwag* informational video screenshot

Another deliverable for the project was a short informational video that would quickly describe *Chinwag* to health care providers in regional areas. The video will be sent to the healthcare specialists who asked for it during the interviews the team conducted. Additionally, the informational video will be implemented into the *Chinwag* website. The video is designed to represent the “client journey” through the use of *Chinwag*. This includes the client referral process by their general practitioner, the process of setting up an appointment with intake, and engaging with a VCPS psychologist through video conferencing. The actors in the video are all employees of VCPS since most of them have an Australian accent, which would help the video connect more with regional health specialists. One of the scenes from the video can be seen in Figure 17. The video script can be found in Appendix Q.

5.4. Social Media

For the last deliverable, Facebook and Instagram posts were created which will be published on a predetermined schedule using the Hootsuite website¹¹. The posts are currently being published and will continue to be published throughout 2017 and 2018. Captions of the

¹¹ Hootsuite is a platform that allows users to schedule the release of social media posts on various social networks.

posts encourage the audience to leave comments and share their experiences with other individuals visiting the profile.

On the Instagram account, hashtags are being used in the captions of posts so that they can be discovered by anyone who looks up the hashtags. Furthermore, attention was given to the design of the Instagram profile. From the social media marketing research, the team discovered that consistent coloring and an overall aesthetically pleasing page were necessary. Colors for the social media posts were determined based on the *Chinwag* logo, in order to be consistent and create an eye-catching page. The informative and motivational posts are also being published alternately to create an aesthetically pleasing page. An example of an informative social media post can be seen in Figure 18 and an example of a motivational social media post can be seen in Figure 19.



Figures 18 (L) and 19 (R). Informative social media post and motivational social media post, respectively

Chapter 6. Recommendations

Along with the deliverables, a set of recommendations were created for both VCPS, and other students groups, with regard to growing *Chinwag* as a brand. Many of the recommendations were based on making additions to the website, as well as on methods that were unable to be completed due to time constraints.

6.1. Recommendations for VCPS and *Chinwag*

Field Testing

Field testing of the *Chinwag* website with regional Australians is recommended, and it would provide VCPS with feedback that would be helpful for editing the website. For example, field testing could be used to ensure the website is user friendly and provides clients with useful, understandable information. In addition, the feedback may contain concerns that otherwise would not be considered due to differing perspectives of regional residents from those who tested the website. Travel to regional areas would be necessary.

Research WordPress

More research on *WordPress* is needed in order to fully customize the website. *WordPress* is the platform which the *Chinwag* website is built on. While working with *WordPress*, it was noted that it does not provide as much versatility as expected. There were inherent limitations on specific features that were implemented, so it was not possible to customize the website with some of the ideas that were suggested. Since *WordPress* is developed for individuals without much website experience and involves only simple features, it was difficult to incorporate all the desired functionality. For example, customizable plugins and themes cannot be uploaded to *WordPress* (Balkhi, 2013). In order to make the website more appealing and functional with more dynamic features, more research is needed on how to implement them. Otherwise, a different platform to implement more advanced features should be considered.

Improve Formatting of the Concern Pages

Displaying images and videos on the mental health concern pages will help make the pages more engaging. The only item on the page is a text description of the concern. Simply finding images related to the concern will effectively make the pages more appealing. Videos could also be created for each of these concerns to inform the users more about each concern.

Add Practitioner Search Button for Mental Health Concerns

A button should be added to the pages regarding mental health concerns that will allow the users to find practitioners that address the mental health concern they are investigating. This will make it easier for users to find practitioners that treat more specific concerns rather than the general concern filter currently on the *Our Team* page. The developer of this feature could filter all the practitioners by mental health concerns and display them as a pictured list on either the *Our Team* page or a new page.

Add Practitioner Videos

Each practitioner should have an informative video on their profile page. This will be helpful for clients to get an understanding of the personalities of each practitioner and their area of expertise. Currently, only a few practitioners have videos on their description pages. This task could be done by future interns or WPI students.

Add Fee Information Button

In each practitioner profile page, an additional button about fee information should be added, like that of the VCPS website. This will ensure clients can easily understand payment information and eligibility for Medicare rebates. Simply redirecting the user to an additional page or displaying a pop-up with this information should be done.

Develop Page for News Articles about Chinwag and Related Topics

A page on the website should be added that links or shows mental health related news stories. This should be done to increase traffic to the *Chinwag* website and make it a “hub” to keep visitors informed of news in the mental health field. Future interns or WPI students could help with updating this page with information.

Add Social Media Widgets

A widget displaying social media posts from Facebook and Instagram should be added to the *Chinwag* website. Linking the website with the social networks will help showcase the Facebook and Instagram accounts more prominently, which will in turn increase publicity of *Chinwag* social media pages (3 key reasons to add social media links to your website, 2014). Additionally, adding links to the website will help increase the likelihood of users finding the website when they type in search engines such as Google. There is a *WordPress* plugin that allows the developer to add this widget.

6.2. Recommendations for Future WPI Students

Develop New Social Media Post Ideas

Future groups working with VCPS to enhance *Chinwag's* social media accounts should explore different ways of incorporating stories into social media posts. When the team started brainstorming social media posts for VCPS, research suggested that collecting stories from individuals and sharing them on social networks would connect with people more. However, after weeks of planning, the team was informed that this would not be possible due to guidelines put in place by both the WPI Institutional Review Board and the Australian Psychological Society. Both of these institutions guidelines restricted the use of real stories from citizens in social media posts. These guidelines are in place in order to reduce the risk of damaging anyone's reputation. Therefore, it's recommended that future teams develop storytelling posts that fit within both institutions guidelines. Additionally, future teams could devise new ideas for possible social media posts.

Surveying

It is recommended that more time be dedicated to collecting survey data. Only two days were spent traveling to the regional areas of Colac and Warrnambool to gather data in person. The short period of time allotted to conduct mental health surveys resulted in a small sample size. With additional time devoted to collecting surveys, a more accurate and statistically significant results can be obtained. The necessary sample size to accurately represent Colac and Warrnambool would be 269- 381 (confidence level 90-95%). Therefore, a goal sample size should be within this range in future surveys.

Overall, in comparison to the review of metropolitan residents from the previous WPI student report, residents of regional areas appeared to be more willing to fill out surveys. However, the team found that when conducting surveys, the approach taken toward the survey takers should be considered, as well as who is approached. Giving an overall open, friendly, confident aura when advancing towards someone is important. This presence, along with professionalism, must be retained even if the person declines the survey. Approaching certain people can also be helpful. For example, asking people who were walking briskly, or who seemed to have an agenda typically did not result in a completed survey. Conversely, people who were sitting at an outdoor table near a cafe, walking leisurely, or working in a store with no customers, were generally more willing to take surveys.

Chapter 7. Conclusion

The goal of this project was to improve knowledge of, and access to, mental health care in regional Australia through telepsychology. The team conducted a literature review and gathered data on the stakeholders, telepsychology, stigma, and successful mental health stigma reduction campaigns in order to obtain a better understanding of the current state of mental health care in Australia. This data directed the team to survey residents and interview health specialists within regional Australia in order to obtain data with regard to their opinions on mental health, telehealth services, and social network usage. With these results and those of the previous WPI group, the team compiled a report on the differences in attitudes towards mental health between Australians living in regional and metropolitan areas. It was determined that regional Australians appeared to be more willing to utilize mental health services.

However, since the data collected are not statistically significant, it is recommended that VCPS and future groups collect more data from regional and metropolitan Australians in order to get a more accurate representation of the differences of opinions between these two groups. Additionally, the data gathered over the course of the project was used during the development of the *Chinwag* website, informational video, and social media pages and posts. It is recommended that VCPS continue to update the *Chinwag* website and social media pages to ensure that *Chinwag* obtains the attention it needs in order to experience growth... Upon returning to the United States, the team believes VCPS will be able to continue working on this project to improve regional Australians' access to mental health care with *Chinwag*.

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Appendix A - Informed Consent Form - Mental Health Survey and Interviews for Regional Australians

ID:



Informed Consent Agreement

Investigators: Jason Abel, jabel@wpi.edu; Hannah Bornt, hpbornt@wpi.edu; Robert Harrison, raharrison2@wpi.edu; Anastasia Karapanagou, akarapanagou@wpi.edu

Purpose of the study: This study investigates perceptions towards mental health care.

Procedures to be followed: You will be asked questions regarding your thoughts around seeking professional mental health care, your experiences with mental health, and basic demographic information.

Risks to study participants: There are no physical or psychological risks beyond those in everyday life.

Benefits to research participants and others: There are no direct benefits to participating in this study. The results of this study may enable us to better understand how mental health care is perceived.

Confidentiality: The information that you give will be handled anonymously and confidentially. Your information will be assigned an ID number; however your name will not be linked with your participant number. Your name will not be used in any report.

Voluntary participation: Your participation in this study is completely voluntary.

How to withdraw from the study: If you want to withdraw from the study, please tell the researcher and leave the room. If you are participating online, please exit the web browser at any time. Your data will be destroyed. If you would like to withdraw after your materials have been submitted, please contact us at marketing@vcps.com.au

For more information about this research, contact:

Jason Abel, Hannah Bornt, Robert Harrison, Anastasia Karapanagou. Email: marketing@vcps.com.au

For more information about the rights of research participants contact:

WPI IRB Chair: Professor Kent Rissmiller, Tel. 508- 831-5019, Email: kjr@wpi.edu

WPI's University Compliance Officer: Jon Bartelson, Tel. 508-831-5727, Email: jonb@wpi.edu

By beginning the study, you acknowledge that you have been informed about and consent to be a participant in the study described above.

Appendix B - Sample Mental Health Survey Questions

ID Number:

Thank you for taking the time to take this survey. We work for a psychology service in Melbourne. We are trying to find out the best way to offer counselling services to people in your community through your home computer.

1. On a scale from 1(not important/likely) to 5 (very important/likely):
 - a. How important is it for you to maintain good physical health?
 - b. How important is it for you to maintain good emotional health?
 - c. How likely are you to tell someone if you have a mental health illness, like depression or anxiety?
 - d. How likely are you to go visit a psychologist or counsellor?
2. In the past year, how many times have you seen a psychologist or counsellor?
3. Do you know about any mental health services in your area?
 - a. If yes, do you think they are easy to access?
4. Do you think that counseling can help people through difficult times in life?

Thank you for your participation in this study. We appreciate you taking time out of your day to answer our questions. If you have any further questions or concerns, feel free to contact us at

Victorian Counseling and Psychological Services

62 Wellington Parade, East Melbourne, VIC

For more information please visit www.vcps.com.au

b17vcps@wpi.edu.

Appendix C - Sample Interview Question for Regional Australians

Thank you for taking the time to talk with us. We work for a psychology service in Melbourne that offers counselling to people living in your area. We are trying to find out the best way to offer counselling services to people in your community through your home computer. We want to understand how people in (Colac/Warrnambool) access mental health care. Would you be happy to read this consent form? Do you have any questions?

1. How do you define mental health?
2. Do you think that people are generally caring and sympathetic toward people with mental health illness such as depression or anxiety? What about illnesses like dementia?
 - a. What effects do you think this attitude has on those living with mental illness and their loved ones?
 - b. What effects do you think it has on their tendency to seek help?
3. Would you be comfortable talking about your own experiences with mental health?
 - a. Do you know anyone that lived with or is currently living with mental illnesses?
 - i. Does anyone in your family live with mental illnesses?
 1. Did you ever feel ashamed or bullied due to it?
 2. Did you ever want to hide from family/ friends/ strangers?
 3. What does mental health stigma feel like to you?
 4. Were you ever referred to a mental health specialist by your doctor?
 - ii. No
 1. How would you seek help if you had a mental illness?
 2. Would you feel comfortable accessing help?
 - b. Was there ever a time that you felt you struggled to stay mentally healthy?
 - i. Yes
 1. Did you ever feel ashamed or bullied due to it?
 2. Did you ever want to hide from family/ friends/ strangers?
 3. What does mental health stigma feel like to you?
 4. Were you ever referred to a mental health specialist by your doctor?
 - ii. No
 1. How would you seek help if you had a mental illness?
 2. Would you feel comfortable accessing help?
4. Do you think maintaining your mental health is as important as other regular activities like going to the gym?
5. Do you have any advice on staying mentally healthy?
6. Would you like to learn more about our project offering psychology counseling via the internet on your home computer, tablet, or phone? You can claim it on Medicare.

We appreciate you taking time out of your day to answer our questions. If you have any questions or concerns, please feel free to contact us (marketing@vcps.com.au)

Victorian Counseling and Psychological Services
62 Wellington Parade, East Melbourne, VIC

For more information please visit www.vcps.com.au

b17vcps@wpi.edu.

Appendix D - Interview Questions for John Smith and Dianne Hobday

Introduce ourselves and how we plan to help VCPS with *Chinwag*.

- Ask about their work experience and how they've progressed to being where they are now.
 - John Smith being the Chief Executive Officer of West Wimmera Hospital
 - How did you come to be honored as hospital chief?
 - Dianne Hobday being a female leadership figure in the health field
 - How did you get to where you are?
- How do you fit into *Chinwag*?
- How do you see *Chinwag* being adopted by GP's and by clients?
- What are the differences between living in rural regions versus more metropolitan areas?
 - Access to physical health services?
 - Access to mental health services?
 - Is there a difference between the two?
- Could we work with you on sending out surveys / questions to rural GPs you know?

Appendix E - Informed Consent Form - Interview for GPs

ID Number:



Informed Consent Agreement

Investigators: Jason Abel, jabel@wpi.edu; Hannah Bornt, hpbornt@wpi.edu; Robert Harrison, raharrison2@wpi.edu; Anastasia Karapanagou, akarapanagou@wpi.edu

Purpose of the study: This study investigates the content that will be included in the *Chinwag* website.

Procedures to be followed: You will be asked questions regarding your thoughts on what content might be useful in a website for communicative purposes between clients and healthcare professionals

Risks to study participants: There are no physical or psychological risks beyond those in everyday life.

Benefits to research participants and others: There are no direct benefits to participating in this study. The results of this study may enable us to better understand the types of content that would be useful for the *Chinwag* website.

Confidentiality: The information that you give will be handled anonymously and confidentially. Your information will be assigned a code number; however your name will not be linked with your participant number. Your name will not be used in any report.

Voluntary participation: Your participation in this study is completely voluntary.

How to withdraw from the study: If you want to withdraw from the study, please tell the researcher and leave the room. If you are participating online, please exit the web browser at any time. Your data will be destroyed. If you would like to withdraw after your materials have been submitted, please contact us at marketing@vcps.com.au

For more information about this research, contact:

Jason Abel, Hannah Bornt, Robert Harrison, Anastasia Karapanagou. Email: marketing@vcps.com.au

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WPI IRB Chair: Professor Kent Rissmiller, Tel. 508- 831-5019, Email: kjr@wpi.edu

WPI's University Compliance Officer: Jon Bartelson, Tel. 508-831-5727, Email: jonb@wpi.edu

By beginning the study, you acknowledge that you have been informed about and consent to be a participant in the study described above.

Appendix F - Sample Interview Questions for GPs

Give them some detail on VCPS when we begin. (35 psychologists in East Melbourne around the country). *give them a brochure* I'm a university student (like before) Thank you for taking the time to talk with us. Please take some time to read the informed consent form. Do you have any questions? Ask yes, no, or small answer questions until they have a better idea of what we are talking about

We are interested to find out your opinion on mental health services in Australia and the introduction of counselling services online.

- 1) Have you used skype, Facebook Messenger, Google Hangout, etc.?
- 2) Are you familiar with any sort of telehealth services? If so, which ones?
 - a) Have you ever referred a patient to or used any other remote telehealth services?
 - b) If you have, do you think it's an effective way to help your patients receive psychology services? Why?
- 3) The Victorian Counselling and Psychology Services offers a telehealth service called *Chinwag*. [more explanation may be needed]
- 4) Do you think this would be useful in your practice? Why?
- 5) What would you like to see from an online counselling service?
- 6) If you don't think you need an online counselling service for your patients, why not?
- 7) Do you think most of your patients would be interested in going online and talking to a counselor based in Melbourne?
- 8) What questions do you ask your patients when trying to determine if they need to get help?
- 9) Do you think Chinwag will help you offer a better service to your patients?

We appreciate you taking time out of your day to answer our questions. If you have any questions or concerns, please feel free to contact us at marketing@vcps.com.au

GIVE THEM THEIR CODE and record it!!

Appendix G - Interview Questions for Don Steele

Introduce ourselves and how we plan to help VCPS with *Chinwag*.

Ask about what Don does for VCPS

Talk about *Chinwag*

- Ask about general format of the website?
 - Homepage
 - About page
 - Appointment page
 - Communication section (or skype/other communication tool?)
 - Profile pages for clients about why they are using the service and general info
 - Psychologist profile pages about what they do
 - Login for psychologist to view their clients info
 - Social media page(s)
 - Information page about general psychology content
 - *EasyHealth* page(s)
- What content is needed for each of these pages?
- What Information is needed for GPs to be able to understand what *Chinwag* is?
- How do they get in contact with VCPS to use *Chinwag*?
- What process do GPs need to follow to be able to use the *Chinwag* Service?
- How long before a site like this can be implemented for testing with GPs?

Introduce *EasyHealth*

- Could we add a section to *Chinwag* for the *EasyHealth* content?
 - Videos
 - Questionnaires
 - Self-assessment quiz
 - Content

Appendix H - Informed Consent Form - Usability Testing



Informed Consent Agreement

Investigators: Jason Abel, jabel@wpi.edu; Hannah Bornt, hpbornt@wpi.edu; Robert Harrison, raharrison2@wpi.edu; Anastasia Karapanagou, akarapanagou@wpi.edu

Purpose of the study: This study investigates perceptions towards the *Chinwag* website.

Procedures to be followed: You will be asked questions regarding your opinion on the website's content.

Risks to study participants: There are no physical or psychological risks beyond those in everyday life.

Benefits to research participants and others: There are no direct benefits to participating in this study. The results of this study may enable us to ensure the accuracy of the information provided on the website.

Confidentiality: The information that you give will be handled anonymously and confidentially. Your name will not be used in any report.

Voluntary participation: Your participation in this study is completely voluntary.

How to withdraw from the study: If you want to withdraw from the study, please tell the researcher and leave the room. If you are participating online, please exit the web browser at any time. Your data will be destroyed. If you would like to withdraw after your materials have been submitted, please contact us at b17vcps@wpi.edu.

For more information about this research, contact:

Jason Abel, Hannah Bornt, Robert Harrison, Anastasia Karapanagou. Email: marketing@vcps.com.au

For more information about the rights of research participants contact:

WPI IRB Chair: Professor Kent Rissmiller, Tel. 508- 831-5019, Email: kjr@wpi.edu
WPI's University Compliance Officer: Jon Bartelson, Tel. 508-831-5727, Email: jonb@wpi.edu

By beginning the study, you acknowledge that you have been informed about and consent to be a participant in the study described above.

Appendix I - Sample Usability Testing Tasks

These are a list of tasks that participants will be asked to do. They will be asked to talk through their experience as they are accomplishing these tasks:

1. Find a practitioner who addresses gambling
 - a. Find how much it will cost to have a session with this practitioner
 - b. Find another concern that this practitioner addresses
2. Find a concern related to someone's child
3. Find where to make a booking with a practitioner
 - a. Find out how to make a quick booking
4. Find a frequently asked question that tell you if you are eligible for Medicare rebates
5. Find the *Chinwag* email and phone number
6. Find where to learn why *Chinwag* will be cost effective

Thank you for accomplishing these tasks, please take the time to explore the rest of the website as much as you want

Appendix J - Sample Usability Testing Feedback Survey

ID Number:

Thank you for taking the time to try out our website. Based on your responses to this quick survey, we may be able to improve the website. Please take some time to read and sign the informed consent form. Do you have any questions?

For the first part, you will be asked to rate certain aspects of the website, where 1 means very dissatisfying, 2- dissatisfying, 3- good, 4- very good, 5- excellent.

- 1) Please rate the **layout** of the website.
1 2 3 4 5

- 2) Please rate the **ease of use** of the website.
1 2 3 4 5

- 3) Please rate the **information** the website provided about *Chinwag*.
1 2 3 4 5

- 4) Please rate the **information** the website provided about **mental health care**.
1 2 3 4 5

In the final part of this survey, you will be asked to provide specific feedback or suggestions regarding the website.

5) How can we improve this site? Were there any specific things you disliked or thought could be done differently?

6) What did you like or find engaging about the website? Were there any things you would like to see more of?

7) Additional comments for our team:

Appendix K - Informed Consent Form - Social Network Survey

ID Number:



Informed Consent Agreement

Investigators: Jason Abel, jabel@wpi.edu; Hannah Bornt, hpbornt@wpi.edu; Robert Harrison, raharrison2@wpi.edu; Anastasia Karapanagou, akarapanagou@wpi.edu

Purpose of the study: This study investigates the use of social media.

Procedures to be followed: You will be asked questions regarding your use of social media and to provide basic demographic information.

Risks to study participants: There are no physical or psychological risks beyond those in everyday life.

Benefits to research participants and others: There are no direct benefits to participating in this study. The results of this study may enable us to better understand how people use social media.

Confidentiality: The information that you give will be handled anonymously and confidentially. Your information will be assigned an ID number; however your name will not be linked with your participant number. Your name will not be used in any report.

Voluntary participation: Your participation in this study is completely voluntary.

How to withdraw from the study: If you want to withdraw from the study, please tell the researcher and feel free to leave. If you are participating online, please exit the web browser at any time. Your data will be destroyed. If you would like to withdraw after your materials have been submitted, please contact us at b17vcps@wpi.edu.

For more information about this research, contact:

Jason Abel, Hannah Bornt, Robert Harrison, Anastasia Karapanagou. Email: b17vcps@wpi.edu

For more information about the rights of research participants contact:

WPI IRB Chair: Professor Kent Rissmiller, Tel. 508- 831-5019, Email: kjr@wpi.edu

WPI's University Compliance Officer: Jon Bartelson, Tel. 508-831-5727, Email: jonb@wpi.edu

By beginning the study, you acknowledge that you have been informed about and consent to be a participant in the study described above.

Appendix L - Sample Social Network Survey Questions

ID Number:

Thank you for taking the time to take this survey. We work for a psychology service in Melbourne. We are trying to find out the best way to offer counselling services to people in your community through your home computer.

1) What is your home postal code?

2) How do you obtain current information or news regularly? Please check up to three.

Internet

Radio

Television

Newspapers

Email

Mail

Magazines

Other, please specify _____

3) What online social networks do you use regularly? Please check all that apply.

Facebook

Instagram

Twitter

LinkedIn

Google+

Snapchat

I do not use social networks ** if selected move to following question and skip questions 4, 5 and 6

Other, please specify _____

I. What is the purpose of social networks?

II. If you do not use online social networks, do you find them difficult to use?

a. Yes

b. No

i. If yes, why do you find social networks difficult to use?

a. _____

b. Prefer not to disclose

ii. If no, why don't you use social networks?

- a. _____
- b. Prefer not to disclose

4) What is the purpose of social networks? Why do you use Facebook, Instagram, etc.?

5) Where do you use it? Please check all that apply.

- ____ Workplace
- ____ Home
- ____ Public places
- ____ Other, please specify _____

6) How fast is your internet connection; (1 = Extremely Bad, 5 = Extremely Good)

| | | | | | | |
|------------------|---|---|---|---|---|---------|
| In the Workplace | 1 | 2 | 3 | 4 | 5 | Unknown |
| At Home | 1 | 2 | 3 | 4 | 5 | Unknown |
| In Public places | 1 | 2 | 3 | 4 | 5 | Unknown |
| Other | 1 | 2 | 3 | 4 | 5 | Unknown |

Demographic questions:

We would like to ask some questions about you.

1) What gender do you identify with, if any?

- a) _____
- b) Prefer not to disclose

2) What is your age?

- a) Under 18
- b) 18 - 29
- c) 30 -39
- d) 40 - 49
- e) 50 - 59
- f) 60 - 69
- g) 70 - 79
- h) 80 - 89
- i) 90+
- j) Prefer not to disclose

3) Please note your ethnicity. Check all that apply.

- a) Australian
- b) Aboriginal / Torres Strait Islander
- c) English
- d) New Zealander
- e) Indian
- f) Chinese
- g) Vietnamese
- h) Italian
- i) Greek
- j) Other please specify _____
- k) Prefer not to disclose

4) Please note your current occupation.

- a) _____
- b) Prefer not to disclose

Recommendation Questions

Finally, we would like to know how you think we can reach people to tell them about our online psychology services.

1) Do you know anyone who would be willing to take this survey? If so, please send this link to them:

http://wpi.qualtrics.com/jfe/form/SV_dmt3TXIyjw2JmnP

Alternatively, you could provide us with their email addresses and we will send them the survey. Please notify anyone you list if possible so that they know in advance they will be receiving the survey.

- a) Yes: _____
- b) No

Thank you for your participation in this study. We appreciate you taking time out of your day to answer our questions. If you have any further questions or concerns, feel free to contact us at

Victorian Counseling and Psychological Services

62 Wellington Parade, East Melbourne, VIC

For more information please visit www.vcps.com.au

b17vcps@wpi.edu.

Appendix M - Mental Health Survey Results

| Questions | Results |
|---|---|
| <p>How important is it for you to maintain good physical health? (41 people)</p> | <p>Not at all Important 0% Slightly Important 3% Moderately important 12% Very Important 51% Extremely Important 34%</p> |
| <p>How important is it for you to maintain good emotional health? (41 people)</p> | <p>Not at all Important 0% Slightly Important 0% Moderately Important 5% Very Important 49% Extremely Important 46%</p> |
| <p>How likely are you to tell someone if you have a mental health illness, like depression or anxiety? (41 people)</p> | <p>Extremely Unlikely 7% Somewhat Unlikely 17% Neither Likely nor Unlikely 12% Somewhat Likely 39% Extremely Likely 25%</p> |
| <p>How likely are you to go visit a psychologist or counselor? (41 people)</p> | <p>Extremely Unlikely 5% Somewhat Unlikely 34% Neither Likely nor Unlikely 20% Somewhat Likely 20% Extremely Likely 22%</p> |
| <p>In the past year, how many times have you seen a psychologist or counselor? (41 people)</p> | <p>0 78% 1-3 5% 4-8 7% 10+ 10% Prefer not to answer 0%</p> |
| <p>Do you know about any mental health services in your area? (41 people)</p> | <p>Yes 76% No 24% Prefer not to answer 0%</p> |
| <p>If yes, do you think they are easy to access? (31 people)</p> | <p>Yes 81% No 19% Prefer not to answer 0%</p> |
| <p>Do you think that counseling can help people through difficult times in like? (41 people)</p> | <p>Yes 98% No 2%</p> |

Appendix N - Usability Testing Findings and Suggestions

Findings

- One participant thought that only one filter can be added at a time. For example, they thought that the difficulty filter was removed when they selected an age filter.
- “Filter by Difficulty” and “Filter by Age” were confusing. Participants thought this meant the practitioner’s difficulty and practitioner’s age, instead of the user’s concern and age.
- “I can help with” section might be too low on the screen. Not many participants realized that this area existed.
- “Why are you here” in the header was confusing for almost all the participants. They did not understand what that area contains until they visited that page.
- Participants had a hard time finding the mental health concerns and the services provided by *Chinwag*.
- “Back to practitioners” button on profile pages was not working.
- “About Us” page may have too much text.

Suggestions

- Change “I can help with” to “[Name or practitioner] can help with”.
- Put “Quick booking” into the header.
- Make the FAQ questions categorized.
- Change “Why are you here” header to a more appropriate header regarding a practitioner’s specialty or user’s mental health concern.
- More links to the “Monash regions” finder should be added in more places on the website.
- Use different color for the FAQ accordion part that displays the answer to the user’s question.
- Include a search feature across all pages.

Appendix O - Social Media Survey Results

| Questions | Results |
|---|--|
| <p>What is your home postal code?</p> <p>(34 people)</p> | <ul style="list-style-type: none"> ● 5249 Netherlands 2.94% ● 3216 Belmont/ Marshall/ Grovedale 2.94% ● 3221 Barrabool/Geelong/Gnarwarre/Cered 2.94% ● 3233 Apollo Bay/Cape Otway 5.88% ● 3249 Alvie, Kawarren, Larpent 5.88% ● 3284 Port Fairy/ Orford 2.94% ● 3258 na 2.94% ● 3277 Mepunga/ Naringal 2.94% ● 3280 Warrnambool 2.94% ● 3251 Cundare/ Weering 2.94% ● 3029 Hoppers Crossing/ Tarneit 5.88% ● 3250 Colac 50% ● 3266 Bullaharre/ Cobden/ Cobrico/ Elingamite/ Elingamite North/ Glenfyne/ Jancourt/ Jancourt East/ Naroghid/ Simpson 2.94% ● 3269 Port Campbell/ Princetown/ Waarre 2.94% ● 3194 Mentone/ Moorabbin Airport 2.94% |
| <p>How do you obtain current information or news regularly? Please check up to three.</p> <p>(40 people)</p> | <p>Internet 67.50%</p> <p>Radio 22.50%</p> <p>Television 55%</p> <p>Newspapers 27.50%</p> <p>Email 15%</p> <p>Mail 7.50%</p> <p>Magazines 0%</p> <p>Other, please specify - Text 5%</p> <ul style="list-style-type: none"> ● Podcasts ● Do not listen to or watch |
| <p>What online social networks do you use regularly? Please check all that apply.</p> <p>(41 people)</p> | <p>Facebook 75.61%</p> <p>Instagram 51.22%</p> <p>Twitter 12.20%</p> <p>LinkedIn 9.76%</p> <p>Google+ 17.07%</p> <p>Snapchat 31.71%</p> <p>I do not use social networks 14.63%</p> <p>Other, please specify -Text 2.44%</p> <ul style="list-style-type: none"> ● none |
| <p>What is the purpose of social networks?</p> | <p>Time wasting</p> <p>Internet</p> |

| | |
|---|---|
| <p>(Those who didn't use social networks - 6 people)</p> | <p>To talk about nothing Information To spread crap Company, communication</p> |
| <p>If you do not use online social networks, do you find social networks difficult to use?</p> <p>(Out of those who don't use social networks - 6 people)</p> | <p>Yes 14.29% No 85.71%</p> |
| <p>Why do you find social networks difficult to use?</p> <p>(Out of those who answered yes to the previous question - 1 person)</p> | <p>Do not use them anymore</p> |
| <p>Why don't you use social networks?</p> <p>(Out of those who answered no to the prior question - 5 people)</p> | <p>Time waste computer illiterate I don't feel the need to share with everyone I hate them Too much tech</p> |
| <p>What is the purpose of social networks? Why do you \$(q://QID2/ChoiceGroup/SelectedChoices), etc.?</p> <p>(Out of those who checked any of the social networks and answered the question - 35 people)</p> | <ul style="list-style-type: none"> ● Keep updated ● Share with friends ● Keep in touch with people ● Networking ● Connect ● Connecting ● Photography, meet people ● Connect with people. News and entertainment ● Keep in contact with friends, work groups ● I don't use any regularly, when I do it's for information or news ● To keep in touch with other people ● Reach ● Keep in Contact with family and friends from all over the world ● Use to keep in touch with relatives, and volunteer bases ● Keeping in touch ● Foundation 61 - mental health rehab place ● Stay in touch with family ● Keep in touch with family and friends ● Connect with friends and family |

| | |
|---|--|
| | <ul style="list-style-type: none"> ● Connect with others ● Talk you your friends and connect ● Keep in touch with family and friends ● To be social and keep up with the news ● Communicate with friends ● Communication tool...promotion of works. News fun ● Keep in contact with friends ● So people around the can communicate with each other more openly. Talk to people you don't know. |
| <p>Where do you use it? Please check all that apply.</p> <p>(Out of those who checked any of the social networks and answered the question - 33 people)</p> | <p>Workplace 48.48%</p> <p>Home 96.97%</p> <p>Public Place 48.48%</p> <p>Other, please specify 3.03%</p> <ul style="list-style-type: none"> ● University |
| <p>How fast is your internet connection AT WORK? (1 = Extremely Bad, 5 = Extremely Good)</p> <p>(Out of those who checked any of the social networks and answered the question - 28 people)</p> | <p>5 - 28.57%</p> <p>4 - 25%</p> <p>3 - 28.57%</p> <p>2 - 3.57%</p> <p>1 - 0%</p> <p>Unknown - 14.29%</p> |
| <p>How fast is your internet connection AT HOME? (1 = Extremely Bad, 5 = Extremely Good)</p> <p>(Out of those who checked any of the social networks and answered the question - 31 people)</p> | <p>5 - 25.81%</p> <p>4 - 35.48%</p> <p>3 - 16.13%</p> <p>2 - 16.13%</p> <p>1 - 0%</p> <p>Unknown - 6.45%</p> |
| <p>How fast is your internet connection IN PUBLIC PLACES? (1 = Extremely Bad, 5 = Extremely Good)</p> <p>(Out of those who checked any of the social networks and answered the question - 25 people)</p> | <p>5 - 24%</p> <p>4 - 32%</p> <p>3 - 16%</p> <p>2 - 0%</p> <p>1 - 0%</p> <p>Unknown - 28%</p> |

| | |
|---|---|
| people) | |
| <p>How fast is your internet connection IN OTHER LOCATIONS? (1 = Extremely Bad, 5 = Extremely Good)</p> <p>(Out of those who checked any of the social networks and answered the question - 19 people)</p> | <p>5 - 0% 4 - 15.79% 3 - 26.32% 2 - 0% 1 - 0% Unknown - 57.89%</p> |
| <p>What gender do you identify with, if any?</p> <p>(Out of those who answered the question - 33 people)</p> | <p>Male 39.39% Female 51.51% Prefer not to disclose 9.09%</p> |
| <p>What is your age?</p> <p>(35 people)</p> | <p>Under 18 0.00% 18 - 29 42.86% 30 - 39 17.14% 40 - 49 2.86% 50 - 59 22.86% 60 - 69 11.43% 70 - 79 2.86% 80 - 89 0.00% 90+ 0.00% Prefer not to disclose 0.00%</p> |
| <p>Please note your ethnicity. Check all that apply.</p> <p>(37 people)</p> | <p>Australian 72.97% Aboriginal/ Torres Strait Islander 0.00% English 13.51% New Zealander 2.70% Indian 0.00% Chinese 0.00% Vietnamese 0.00% Italian 0.00% Greek 0.00% Prefer not to disclose 2.70% Other, please specify 8.11%</p> |
| <p>Please note your current occupation.</p> <p>(35 people)</p> | <ul style="list-style-type: none"> ● Manager ● 3 Retail assistant ● 2 Retail manager ● Retired/ Volunteer work ● Working holiday |

| | |
|--|---|
| | <ul style="list-style-type: none">● 3 Retired● Retailer● Sales● Student● Barista● Management● Working● Nurse● Salesman● Colac● Sales rep● Retail● Labourer● Administration● Working/ Student● Agriculture● Chef● Student/ Retail● Public officer● Milking machine robot technician● Hospitality |
|--|---|

Appendix P - Statistical Analysis of Results

Emotional health importance:

T-Test

Group Statistics

| | RegionQ1 | N | Mean | Std. Deviation | Std. Error Mean |
|---------------------------------|--------------|----|------|----------------|-----------------|
| Q1: Emotional health importance | Metropolitan | 52 | 4.33 | .678 | .094 |
| | Regional | 41 | 4.41 | .591 | .092 |

Independent Samples Test

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---------------------------------|-----------------------------|---|------|------------------------------|--------|-----------------|-----------------|-----------------------|---|-------|
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| Q1: Emotional health importance | Equal variances assumed | .847 | .360 | -.655 | 91 | .514 | -.088 | .134 | -.354 | .178 |
| | Equal variances not assumed | | | -.666 | 90.055 | .507 | -.088 | .132 | -.349 | .174 |

Physical health importance:

T-Test

Group Statistics

| | RegionQ2 | N | Mean | Std. Deviation | Std. Error Mean |
|--------------------------------|--------------|----|------|----------------|-----------------|
| Q2: Physical health importance | Metropolitan | 52 | 4.12 | .832 | .115 |
| | Regional | 41 | 4.17 | .738 | .115 |

Independent Samples Test

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|--------------------------------|-----------------------------|---|------|------------------------------|--------|-----------------|-----------------|-----------------------|---|-------|
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| Q2: Physical health importance | Equal variances assumed | 2.630 | .108 | -.335 | 91 | .739 | -.055 | .165 | -.384 | .273 |
| | Equal variances not assumed | | | -.339 | 89.685 | .735 | -.055 | .163 | -.379 | .269 |

Number of visits to a mental health specialist within the last year:

T-Test

Group Statistics

| | RegionQ4 | N | Mean | Std. Deviation | Std. Error Mean |
|---------------------------------------|--------------|----|------|----------------|-----------------|
| Q4: Number of visits in the last year | Metropolitan | 22 | 1.86 | .990 | .211 |
| | Regional | 41 | 1.59 | 1.264 | .197 |

Independent Samples Test

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---------------------------------------|-----------------------------|---|------|------------------------------|--------|-----------------|-----------------|-----------------------|---|-------|
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| Q4: Number of visits in the last year | Equal variances assumed | .393 | .533 | .894 | 61 | .375 | .278 | .311 | -.344 | .900 |
| | Equal variances not assumed | | | .963 | 52.659 | .340 | .278 | .289 | -.302 | .858 |

Likelihood of visiting a mental health specialist:

T-Test

Group Statistics

| | RegionQ5 | N | Mean | Std. Deviation | Std. Error Mean |
|---|--------------|----|------|----------------|-----------------|
| Q5:How likely they are to visit psychologists | Metropolitan | 30 | 3.13 | 1.196 | .218 |
| | Regional | 41 | 3.20 | 1.269 | .198 |

Independent Samples Test

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|-----------------------------|---|------|------------------------------|--------|-----------------|-----------------|-----------------------|---|-------|
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| Q5:How likely they are to visit psychologists | Equal variances assumed | .088 | .768 | -.208 | 69 | .836 | -.062 | .298 | -.656 | .532 |
| | Equal variances not assumed | | | -.210 | 64.662 | .835 | -.062 | .295 | -.651 | .527 |

Appendix Q - Short Video Script

Script: Chinwag Client Journey

Actors:

Client: Amy
Mental health specialist: Anne-Marie
Intake team: Hannah
Doctor / General Practitioner: Vicki

Equipment:

Camera: Canon EOS 550D
Tripod: Inca Tripod

Location:

Various VCPS offices

Scene 1: Introduce Chinwag (10-20 seconds)

Start with a splash screen of Chinwag. Then transition (probably a fade to white or dissolve into the next scene) into a Psychologist standing in a room (could be a counseling room / office / white wall / etc.). Possibly light music in the background.

Mental Health Specialist:

“Hello, thank you for your interest in our new telepsychology service, Chinwag. The goal of this service is to support regional Australians with quick access to mental health services.

We are going to show you an example of the journey the client will go through while using *Chinwag*. If you have any questions after the video, please call the number listed below, 1300 244 692.”

Scene 2: Client and Doctor Talk (1 minute)

Client walks into Doctors office. Client looks weary. Shot starts aimed at door with doctor leading the client into the examination room.

Doctor:

“Hello Amy, how’s it going?”

Client:

“Hey Doctor. Honestly, I haven’t felt good these last few days. I’ve been having a difficult time falling asleep lately and it’s starting to affect my work. I’ve tried taking sleeping medicine and

researching the issue online, but nothing has worked so far. I don't want to worry anyone, but I don't know who else to talk to. Do you have any advice?

Doctor:

"Hmmm..... Would you be willing to meet with a psychologist about this issue?"

Client pauses for a moment, and appears a tiny bit apprehensive. But then their face softens up a bit as they continues to talk with the doctor. The client stills look a bit nervous though.

Client:

"Yeah..... I guess I could do that."

Doctor:

"Alright. Let me take a look and see when the local psychologist is available to meet with you."

Doctor looks on computer for a moment, clicks with mouse and types something in the keyboard. Then the Doctor begins to frown slightly.

Doctor:

"Unfortunately the local psychologist is booked for the next few weeks..."

Doctor looks around his desk for any help and sees the Chinwag logo on a brochure peeking behind a pile of papers on his desk. He grabs the pamphlet / paper thing and looks over it, with a smile slowly creeping along his face.

Doctor:

".....But, if you're up for it, there is a new service that you could give a try. It's called *Chinwag*, and it's a telepsychology service that will allow you to meet with a psychologist through a video call on your home computer or phone. Since you have your sessions at home, it is completely private and no one has to know about it. We can still set up an appointment with the local psychologist, but if you would like to receive care sooner, I would recommend giving *Chinwag* a shot."

Client:

"...I would definitely like to see someone by the end of the week. I want to have a good night's sleep."

Doctor:

"Why don't we give them a call together to set up an appointment for you?"

Scene 3: Client speaks with intake (20-30 seconds)

GP and Client talk to intake to set up sessions with a specialist. Scene could be a shot for shot, switching between the doctor and client, and the intake team. We could also do the style where a line separates them with the client and doc on one half while the intake member is situated on the other side of the line.

Intake:

“Hello, welcome to Chinwag. My name is Hannah. How may I help you today?”

Doctor:

“Hi Hannah, this is Doctor Vicki. I’m calling because I’d like to refer my patient to meet with one of your specialists sometime this week.”

Intake:

“We can certainly do that. First, I’m going to ask you a few questions about your patient and ensure that they are eligible for the service.”

Scene cuts to black briefly as Doctor starts to give clients name and information. Fades back in from black and we can tell that the meeting has been set up.

Intake:

“Great! That’s all the information we need. Just to reconfirm, your patient has a meeting with Anne-Marie tomorrow at 2pm. I will help your client setup Chinwag on your computer or electronic device so that your appointment progresses smoothly. Also, we will keep in touch with you regarding the status of your patient as they complete their sessions. We have sent you and your patient an email with all the information needed for the session.”

Doctor:

“Thanks so much Hannah, Cheers!”

Intake:

“Cheers!”

Scene 4: Client talks with a psychologist over chinwag (10-20 seconds)

Client and specialist have their sessions via Chinwag video conference. Show both the specialist and the client connecting to the video call. Once both are connected, the session starts. During the scene, the camera has the computer screen and person in the video, and whenever someone talks the camera switches with each participant, showing that the session is occurring online.

Specialist:

“Hello Amy, its Anne-Marie here. How’s it going?”

Client:

“It’s going alright. How about yourself?”

Specialist:

“I’m doing well. May I ask what brings you in today?”

Fades away as they enter their session

Scene 5: Last time with the good doctor (10 seconds)

Fade back into the doctor's office and he is on his email and sees a new one from Chinwag.

Doctor goes to the email and the subject line reads “Clint Chinwag Session report.” cut to shot from behind the computer, where the doctor is reading the email and he starts to slowly smile.

Then dissolve into the chinwag logo or poster for 5-10 seconds then fade to black.