



Differences in Attitudes towards Mental Health

*A comparison report describing the
differences in attitudes toward mental health
between regional and metropolitan
Australians for VCPS*

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Introduction

On November 13 and 14, the team of Worcester Polytechnic Institute (WPI) students traveled to regional areas of Australia in order to survey and analyze the opinions that residents of these areas have regarding mental health. Surveys and interviews were conducted with residents of Colac and Warrnambool. Colac is a Monash region 4 town and Warrnambool is a Monash region 3 town. Although only residents of Monash regions 4-7 are eligible for telepsychology Medicare rebates, many people from regional areas visit Warrnambool. It should be noted that 20% of survey takers were from Monash regions 1-3 or outside of Australia.

The following report summarizes the results of a mental health survey developed by the team; a comparison of these results with the results of a comparable survey conducted with metropolitan residents of Australia by a previous group of WPI students; as well as a case study of two interviews conducted with residents of Colac.

Results

During the trip, 41 residents of Colac and Warrnambool were surveyed 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 in Figure 1.

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

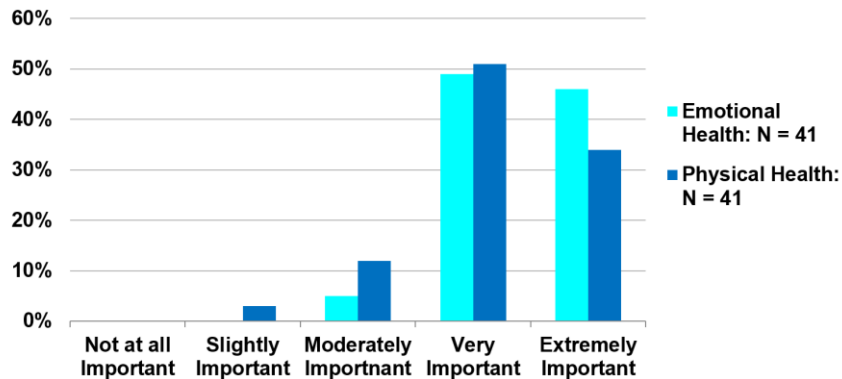


Figure 1. Importance of emotional and physical health.

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 2. Additionally, only 22% of the survey respondents had seen a mental health specialist within the last year. However, 98% claimed that counseling can help people through difficult times in life.

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

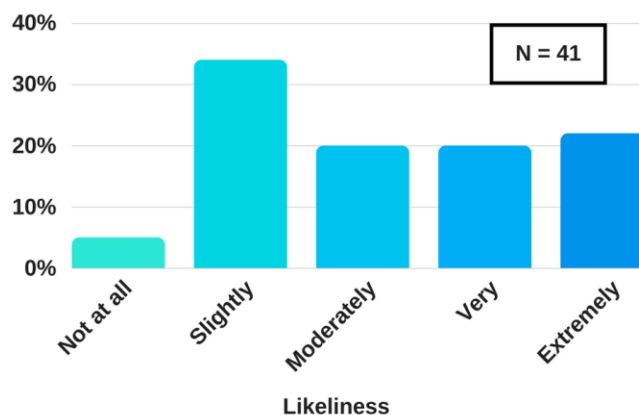


Figure 2. Likelihood to seek mental health services

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. It should be noted that 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 health¹ 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 in Figure 3. The mean score of emotional health importance of regional Australians ($M = 4.41$, $SD = 0.59$) was not statistically different than the mean score of emotional health importance of metropolitan Australians ($M = 4.33$, $SD = 0.68$), $t(91) = -0.66$, $p = 0.51$ ², two-tailed test. Various methods are used to test Likert-type data³, 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).

As shown in Figure 4, 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

¹ 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.

² 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.

³ 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. A larger sample would have possibly yielded more statistically significant results.



Figure 3. Comparison of emotional health importance between regional and metropolitan Australians.

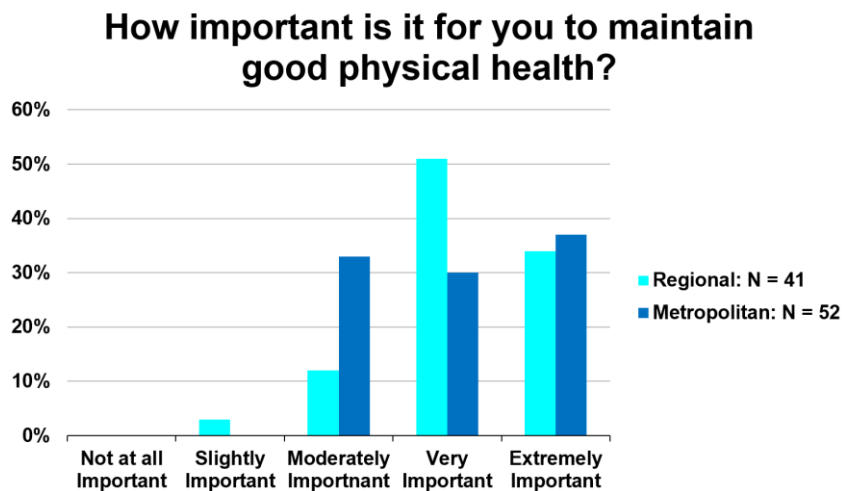


Figure 4. Comparison of physical health importance between regional and metropolitan Australians.

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 in Figure 5, 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 to a psychologist made by regional Australians ($M = 1.59$, $SD = 1.26$) was not statistically different than the mean score of number of visits to a psychologist made by metropolitan Australians ($M = 1.86$, $SD = 0.99$), $t(61) = 0.89$, $p = 0.38$, two-tailed test. Additionally, as shown in Figure 6, 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 regional Australian's likelihood to visit a mental health specialist ($M = 3.20$, $SD = 1.27$) was not statistically different than the mean score of metropolitan Australian's likelihood to visit a mental health specialist ($M = 3.13$, $SD = 1.20$), $t(69) = -0.21$, $p = 0.84$, two-tailed test.

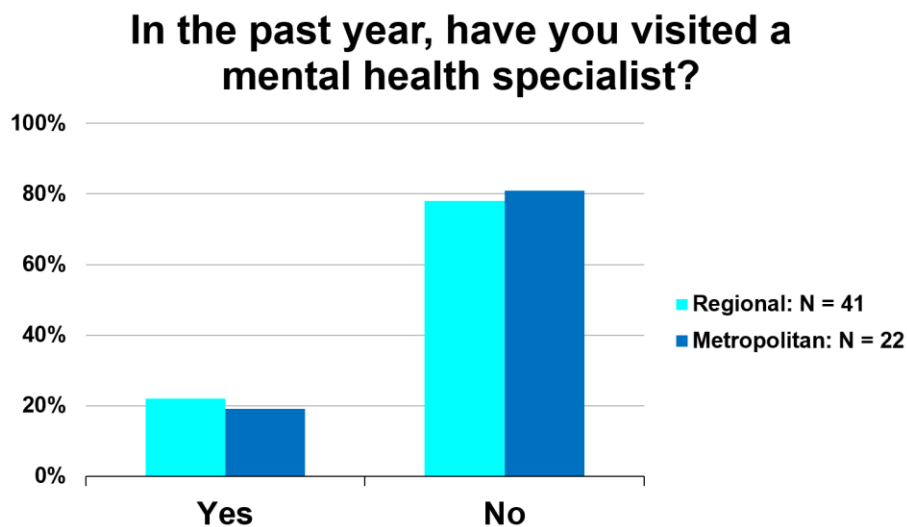


Figure 5. Comparison of mental health service use between regional and metropolitan Australians.

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

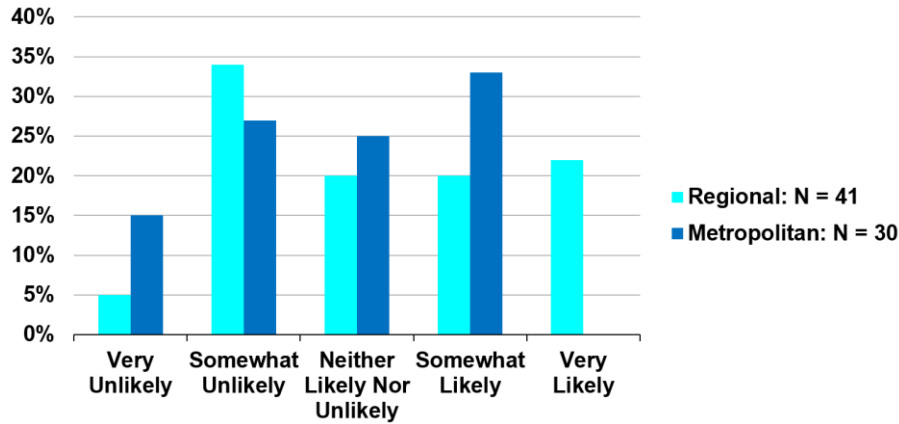


Figure 6. Comparison of likelihood to seek help from a mental health specialist between regional and metropolitan Australians.

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 381⁴. 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.

Case Study

In addition to the mental health survey, the WPI 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,

⁴ 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.

he agreed to answer a few questions. He gave consent for the interview to be recorded, and 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 problem. 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' problems. 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, understanding, and acceptive of mental health issues. Overall, she felt that the stigma surrounding mental health has decreased a lot in the past 20 years, and that people are becoming more aware, understanding, and acceptive of people experiencing mental health concerns. She went on to say, "I think [people] realize it's a condition... it's not this thing-- this demon." 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.

There are 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 Australians have more accessible help than those living in 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. On the contrary, the second interviewee understood mental health and was more accepting of people living with mental health concerns. These differences may suggest that attitudes toward mental health are more reliant on knowledge rather than location. However, location and age may affect residents' access to education on mental health. 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 quite extreme ideas on mental health, which may suggest that there are others in the area with the same opinions.

Conclusion

In conclusion, there are various differences in perspectives of mental health throughout Australia. While regional Australians appear to be more willing to use mental health services in comparison to the previous group of WPI students' report on metropolitan Australians, not all regional residents share this view, as proven by interviews. There are varying opinions on mental health within regional areas, which suggests that these opinions may be dependent on factors other than location, such as education (relating to mental health) and/or age. It is recommended that VCPS and future groups expand on this project and collect more data through surveys and interviews from both regional and metropolitan Australians. Additional data will increase sample size for more accurate and statistically significant results, to effectively demonstrate and determine the differences in opinions of mental health in regional and metropolitan Australia.

References

- Frost, J. (2016,). Best way to analyze likert item data: Two sample T- test versus mann-whitney. Retrieved from <http://blog.minitab.com/blog/adventures-in-statistics-2/best-way-to-analyze-likert-item-data%3A-two-sample-t-test-versus-mann-whitney>
- Gorard, S. (2015,). Comparing two sets of ordinal data (4- likert scale) (answer/ reply). Retrieved from <https://www.methodspace.com/forums/topic/comparing-two-sets-of-ordinal-data-4-likert-scale/>
- Messing, A. (2014,). How do I compare two sets of likert scale data? perceived and felt emotional responses to music (answer/ reply). Retrieved from https://www.researchgate.net/post/How_do_I_Compare_two_sets_of_likert_scale_data_Perceived_and_felt_emotional_responses_to_music