

Review of the National Depression Initiative: The Journal and Depression Website

AUT Centre for eHealth project for the Health Promotion
Agency

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COMMISSIONING CONTACT'S COMMENTS

NOT EXTERNALLY REVIEWED

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CENTRE FOR
eHEALTH

NDI Review: depression.org.nz and The Journal

A Centre for eHealth project for the Health Promotion Agency

Final Report

FINAL REPORT 10 AUGUST 2016

AUT

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BACKGROUND

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This project was funded by the Health Promotion Agency.

TERMINOLOGY AND DEFINITIONS

The website depression.org.nz and The Journal touch many different domains and it can be described as a:

Health information website with a self-assessment test that promotes access to an online Cognitive Behavioural Therapy based self-help tool with 24/7 multi-channel communication access to health professionals offering support.

In many ways the service is still unique in the breadth and depth of the nature and extent of support it offers. As such it is hard to place in a single category. To simplify matters, this report uses the following two terms in an inclusive manner:

MENTAL HEALTH

The international literature often uses 'mental health' as an umbrella term to refer to both mental health and addictions. This reflects the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM-5) categorisation of 'Substance-Related and Addictive Disorders' as one section of Mental Disorders Criteria and Codes. This report will follow this convention, thus all references to mental health are to be read as including addictions unless otherwise stated.

Note: The scope of this review is specifically on depression and anxiety and does not include broader mental health or addictions.

E-MENTAL HEALTH

The report uses the term e-mental health as a shorthand term based on this definition:

Mental health services and information delivered or enhanced through the Internet and related technologies.

Christensen et al. (2002)

CITATION

Edwards, G. D., Gill, S., Drown, J., Thapliyal, A. & Babbage, D. R. (2016). *Review of the National Depression Initiative: The Journal and Depression Website*. Auckland, New Zealand: Auckland University of Technology Centre for eHealth.

ETHICAL APPROVAL

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INTRODUCTION

PROJECT PEOPLE

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SCOPE

The scope of this review is the website www.depression.org.nz and The Journal.

The focus of the review was primarily The Journal with the following areas of other interest from the HPA:

- How The Journal sits with the information resources on depression.org.nz i.e. do they sit well together and could this be enhanced?
- Are changes to depression.org.nz needed in order to maximise access to and benefits from The Journal?
- Could people access The Journal without first visiting depression.org.nz?

PROJECT COMPONENTS

This project had four components:

INFORMATION STOCKTAKE AND REVIEW

A gathering, analysis and synthesis of information on:

- Documentation provided by the HPA and the Ministry of Health underpinning the website www.depression.org.nz and The Journal such as reports, evaluation/research, and any other relevant papers.
- National and international literature accessible from AUT Online Library and Google, including peer reviewed journals and grey/unpublished literature.

This was a pragmatic search to identify and describe literature, rather than a classic academic literature search and analysis.

- Comparable services and initiatives in the global market from reaching out to colleagues in this domain and Google search.

The focus was online self-help support for depression and anxiety and e-mental health/tele-mental-health and on public/private population health services rather than commercial services (such as apps). The aim was to give exemplars rather than an exhaustive list.

SERVICE USERS INPUT

Online survey with people using The Journal.

This was an online self-completed survey with a mix of quantitative and qualitative questions designed to capture what works well and what could be improved. Invitations to participate were emailed to people who are active users of The Journal i.e. have logged on in the last twelve months. All participants who completed the survey could choose to enter a prize draw for one of 10x \$50 Warehouse vouchers.

The findings were analysed to provide descriptive statistics of quantitative results, including any correlations with demographic data, and thematic groupings of qualitative results.

POTENTIAL REFERRERS INPUT

Online survey, interviews, focus groups and email submissions from key informants who could be Primary Care referrers to the website www.depression.org.nz and The Journal. This included GPs, Practice Nurses, Primary Mental Health Coordinators, Psychologists, Midwives and other health professionals.

The findings were synthesised using descriptive statistics and thematic analysis.

PRODUCERS AND PROVIDERS INPUT

Interviews, focus groups and email submissions from key informants involved in the production and delivery of the website www.depression.org.nz and The Journal and online survey of support staff who work on the National Depression Initiative.

The findings were synthesised using descriptive statistics and thematic analysis.

DISCUSSION AND RECOMMENDATIONS

Users, producers/providers of The Journal and referrers were positive about the value of the service, and reported experiencing benefit from using it. They provided a range of ideas for extending and enhancing the system. The overall feedback was The Journal is a system that users and other stakeholders were reporting was worthwhile, and worth further developing.

This discussion and these recommendations are based on the literature examined in this review, the background information provided by HPA, and the data collected in the course of the review. Each recommendation needs to be weighed up in the context of other factors that will also be pertinent to mapping the right direction forward for The Journal, including:

- Wider priorities for the future development of mental health services, and in particular for people with mild to moderate depression.
- A careful analysis of cost–benefit for extensions to the programme, in comparison to other new initiatives that might also achieve equally desirable advances in the health and mental health of New Zealanders.

USER COACHING

The international literature in the area of online supports for mental health conditions indicates greater effectiveness is seen when users of online therapy systems are provided with human therapeutic support. There are a range of models for this, but such support often is provided by paraprofessionals—people with training but who may not be registered health professionals—acting as ‘coaches’. While face-to-face approaches have been used in some cases, a cost effective approach to national provision of such support is telehealth-based coaching.

Evidence from overseas studies suggests that providing an active coaching service that proactively followed up with users would likely increase engagement, extend use of The Journal, and lead to a greater gain in long term clinical outcome. Meanwhile, users of The Journal, producers/providers and referrers all described some kind of support along these lines as being desirable. Based on the evidence available, the addition of coaching support for The Journal is the recommended change for consideration that is most likely to lead to additional long term clinical gains from the service.

Recommendations:

- Evaluate options for incorporation of proactive coaching support, incorporated as a core component of The Journal programme, while being optional for users to engage with.
- If a coaching service is incorporated in The Journal, consider conducting research/evaluation on the incremental efficacy of incorporating this, compared to outcomes for The Journal without coaching. It is recommended any such research should be published to contribute to the international literature in this area, as the current data is adequate but information on this from The Journal would also meaningfully advance the knowledge of the field.

USABILITY

We know from a wider body of knowledge that usability is extremely important to both uptake and to ongoing engagement with users of a technology system. Usability includes

factors ranging from designing interface elements that are simple, and which work in the way a user expects they will work even before they have been trained. The Journal is an attractively designed system that has many positive usability aspects already. This remains however an area for further potential development over time. Work on usability aspects of the system has the potential to unlock further clinical gains, where this work enhances engagement and increases the number of people who continue to engage with The Journal for longer, and through to completion.

Both users and producers/providers were clear that The Journal should be updated to be usable on mobile devices and tablets. Many other suggestions were focused around further enhancements in terms of usability factors, often relatively minor changes to make the user journey clearer or smoother. For example, it was suggested that more flexible approaches to user authentication be explored, as well as making the calendar easier to use, simplifying some tasks, and providing more flexibility in others. Both users and producers/providers suggested that The Journal should add additional interactivity to the site, which done effectively could further enhance engagement. Therefore, while The Journal is already a good and well-received service, all of these suggest the possibility of productive attention to further usability enhancement of the system. Refining an interface to give a smooth and engaging user experience is neither straightforward, nor something that can be achieved in a single design stage. Rather, it will usually require an iterative approach, where in-depth usability testing is conducted with a series of service users, and feedback is incorporated iteratively into designs that are then again tested in usability scenarios, before being incorporated into the production system. Alongside this, analysis of data collected from the live site could identify areas where engagement is lower, or usage patterns are not as expected. This will highlight areas for specific attention through the usability testing and refinement process.

Recommendations:

- Adaptation of The Journal to be accessible on smartphones and tablets is a high priority. Smartphones have much more equal penetration in the New Zealand community across cultural and socioeconomic groups than laptops and desktop computers, and are becoming the primary point of internet access for many people. Our team is aware that a redevelopment project is already underway to make The Journal accessible on smartphones and tablets.
- Consideration of development of a co-design plan for ongoing usability testing and refinement of The Journal.

ENGAGE WITH HEALTH SERVICES

In a range of ways, greater links with health services, particularly primary care, would strengthen The Journal, and likely increase its effectiveness. Participants recommended greater education of clinicians in primary care about The Journal, so they could recommend it to potential users, but also that direct and optimum links be examined between The Journal, the patient management systems and patient portals used by these practices. Greater interconnection and reduction of information silos is clearly the direction being pursued across the New Zealand health system. There is good reason to believe providing the option for this kind of linkage with their own health records would be to the benefit of users of The Journal. Exploration of how to effectively link The Journal with primary care delivery is a high priority recommendation for future development of The Journal.

Recommendations:

- Explore effective outreach to primary care either via integration with the patient management systems or patient portal options and other health service providers to promote greater awareness of The Journal, create optimum integration, and promote increased referral of suitable users to The Journal.
- Consider conducting a deeper consultation on the issue of integration of The Journal into the wider electronic health landscape in New Zealand, as stakeholders varied in their views on this. Producers/providers were in favour of this but end user views were more varied. It may be that key to such an integration is user choice as to what information, if any, is shared with primary care. Such an approach could provide visibility to primary care practices of data on progress and outcomes, with user consent, to enable primary care practices to more effectively engage with and support use of The Journal as part of a wider integrated care plan. We would recommend further engagement with stakeholders to understand and consider the nuances of such a development.

INTERVENTION CONTENT

In this review participants referred to a number of additional interventions that people were familiar with, that were recommended for possible inclusion in The Journal. The Journal is based on a Cognitive Behavioural Therapy (CBT) model and the evidence basis that underpins that. The current approaches in The Journal continue to be well supported in the treatment efficacy literature. Alongside this, a number of other treatment approaches (e.g., Mindfulness techniques) have gained both an evidence base and a substantial degree of popular support in mental health service delivery. Clinicians would differ in their views on whether combinations of approaches are preferable over a pure focus on a CBT model. This is, however, an area worth considering.

Recommendations:

- Consider engaging a process of expert content review, to consider incorporation of additional therapeutic activities (e.g., mindfulness exercises) that could be complementary to the current offerings in The Journal.
- If the above identifies additional therapeutic activities that might add significant clinical value to the current tools offered in The Journal, examine the business case for development of these tools and incorporation into The Journal.
- Give consideration to implementing a process of routine ongoing content review, such as an annual or biennial review process, to surface new approaches or variations on existing approaches that should be considered for incorporation into the platform over time.
- Consider incorporation of a formal role for outcome and therapeutic process research on the content provided by The Journal, to directly inform further development and re-evaluation processes over time.

DOCUMENT EFFECTIVENESS

Research literature provided a valuable platform for developing The Journal, and for considering it again at this time. There remains considerable scope for usefully expanding the evidence basis to assist us in understanding how to provide the most effective online mental health programmes to New Zealanders. It is in our interests to carefully evaluate outcomes from The Journal, examining previous data (to the extent this is permissible and appropriate) and in the future, building systems for ongoing evaluation of efficacy and

effectiveness into the service provision itself. Formal evaluation of many such systems internationally has been modest, further underscoring the value of examining what we are doing ourselves in New Zealand. The online delivery of The Journal provides opportunities for substantial reflection on service data, while the incorporation of additional long-term follow-up to examine outcomes both quantitatively and qualitatively would provide highly valuable insights.

Recommendations:

- Examine the value, permissibility, and feasibility of undertaking a robust evaluation of process and outcomes of past users of The Journal, that builds on and extends previous examinations of this data. Consider engaging an expert advisory group of service users, academics and clinicians to consider the best analysis approaches to apply to the data available, with this advice informing the approach then employed by a smaller focused lead evaluation team.
- Provide significant consideration to incorporating robust, academically-led evaluation processes into the ongoing delivery of The Journal, to expand our understanding of outcomes.
- Consider funding a formal academically-led programme of outcome research that extends the data routinely collected in The Journal to invite users to participate in additional long term outcome evaluations (six months, one year, two years post-intervention), collecting both quantitative and qualitative data.
- It is recommended that all of the above approaches be designed to support and encourage formal publication of the findings of the research and evaluation in appropriate peer-reviewed journals, to both inform the field and to highlight the leading work that has already been undertaken in development of The Journal and the wider National Depression Initiative.

CONSIDER A BROADER FOCUS

The review highlighted the suggestion that the core approach in The Journal has applicability to a broader range of conditions than mild to moderate depression. Given the core CBT components of The Journal have been shown to be effective in evidence-based treatments of other mental health conditions, this is a reasonable possibility that should be examined. In considering the potential extension to other mental health conditions, it will be important to resource the necessary development to provide appropriately specific content that is responsive to both the similarities and differences of the needs of other users, to the current needs of people with mild to moderate depression.

Recommendations:

- Identify the degree to which the current system underpinning The Journal could be adapted to deliver programmes for other mental health conditions, and develop estimates of the cost to adapt content to be suitably tailored for those conditions.
- Based on the information above, examine the strategic value in extending the current offering of The Journal to deliver versions of the programme focused on other mental health conditions.

REFLECT CULTURES

A number of participants suggested a new a refreshed look for The Journal, that is updated as time progresses. We recommend the opportunity alongside considering this, to

examine ways to reflect a more diverse New Zealand in the look and feel of The Journal. Many elements, including the lead role played by John Kirwan, give the Journal a clearly 'New Zealand' feel, which is positive. Alongside this, New Zealand-based research discussing health IT systems more generally suggests that New Zealanders from Maori and Pacific communities may feel more engaged with a system that more strongly visually resonated with their cultural background.

Recommendations:

- Consider culture-specific adaptations of content, incorporating material such as that by Bennett et al. on adaptation of CBT for Māori tangata whaiora with depression.
- Consideration of processes for examining if and when a visual refresh of elements of The Journal may be required, ideally validated through user testing.
- Consideration of implementation of user-customisation of the theme applied to The Journal, providing a number of options including themes that would resonate with visual (and potentially auditory) motifs of Maori and Pacific communities.
- Consider in the longer term options for expanding the focus of The Journal from individuals with depression being supported by their family, to explicitly incorporate interventions that focus on health and mental health improvements in an entire whanāu.

TECHNOLOGY ARCHITECTURE

Participant recommendations for evolution of The Journal over time highlight the importance of having a system that is responsive to change and development. Over time software development processes have moved from monolithic projects to more agile and flexible approaches, which are based on continuous development and integration. Nearly all of the recommendations above would be easier to pursue, or even contemplating pursuing, in a system that has been designed with such a process in mind from the outset. In planning the future development of The Journal, and associated systems, we recommend it would be strategic to consider the degree to which flexible, continuous development approaches might play a contributing role in producing the most effective online mental health services for New Zealanders.

Recommendations:

- Documenting the extent to which the current technology architecture of The Journal could support more agile, continuous development processes.
- Consideration of developing a long-term technology architecture plan for The Journal, which guides future development efforts in terms of the desired degree of flexibility in delivery and continuous development.
- Consideration of incorporating continuous evaluation, review and refinement programmes alongside and into the standard operational processes of The Journal (and other associated web resources), rather than approaching changes as monolithic redevelopments.
- Examining service delivery, development and support contracts underpinning the technical platform of The Journal, to consider how these can productively support the desired level of flexibility and ongoing strategic development of The Journal over time.

STRATEGIC DIRECTION

All of the above outline a vision for pursuing ongoing development and evolution of The Journal. Implicit within this is the value of a strong strategic direction and leadership for The Journal. There are multiple stakeholders involved in the procurement, design and delivery of The Journal at any one time, and these stakeholders have at times changed over time. There are a variety of potential arrangements of these roles, many of which could work effectively. There is strategic value in having ongoing clarity about these roles, responsibilities, and leadership of the direction of The Journal and associated online support systems.

Recommendations:

- We recommend consideration of whether there are additional mechanisms that would be useful to employ to provide enhanced clarity internally between the various contributing agencies and stakeholders about the roles and relationships of the range of stakeholders involved in delivery of The Journal, in order to achieve the most effective and responsive system for New Zealanders.
- One such approach might include development of a structure diagram that identifies all key stakeholders, documents their roles and responsibilities, identifies lines of communication and reporting, and nominates key contact people or pathways for engaging with other stakeholders. This is identified as only one option, and other approaches might be deemed more useful, or this may be an area where further attention is not considered necessary at this time.

IMPROVEMENT FINDINGS

All interview and survey participants were asked how the services of the website and The Journal could be improved.

These have been compiled and listed below.

Note: This review was being conducted while significant development work was occurring that participants would not be aware of, for example upgrading the website to a mobile responsive site and including service user stories.

SERVICE USER

IMPROVING THE WEBSITE

- Incorporate more information on the website in terms of self-help techniques such as meditation, breathing exercises, mindfulness, positive affirmations.
- Evolve and update content as time progresses.
- Include videos and testimonials on the website from previous service users or people who have gone through the journey.
- Make the website more personalised and interactive for users, so they can connect and relate to it more.
- Make it technologically advanced and mobile friendly.
- Provide online support through the website if people need to speak to someone.
- Provide users with ways to get in touch through the website with other people who are using the website and journal.
- Provide links on the website to local services, support people where people can go if need be.
- Provide information that is easier to understand, including facts about the causes of depression, different medications and the side-effects of these, relapsing and other important issues related to depression.
- Have links or information for different groups of people such as women, men, Maori, Asian, teens, working adults, elderly to make it more effective for them.
- Include more activities, tasks and sections for people to engage with.
- Incorporate an online thread/forum on the website where people can ask questions and connect with users, professionals and coaches.
- Provide more information on recipes, nutritional programs, diets that people can follow without having to log into The Journal.
- Build in online/text based counseling through the website.
- Offer more information for partners and families who support depressed people and are there with them through their journey.
- Provide an actual space to journal and write about the day, emotions and feelings on the website.

IMPROVING THE JOURNAL

- Make the calendar easier to use without locking and preventing people from doing certain tasks and sections.
- Allow more flexibility with the password for signing in to the site.
- Undertake more advertising of The Journal through social media, TV campaigns and other avenues such as schools, universities, health clinics, brochures or even billboards to increase awareness about the program.
- Provide additional content, including information about self-help techniques such as mindfulness, meditation, stress reduction, positive affirmations or gratitude.
- Provide an option to cancel a subscription and delete personal details.
- Make The Journal more interactive and personalised – so people feel more connected and can relate to it.
- Make The Journal more user-friendly:
 - Accessible through mobile phone, tablets as well as desktop computers.
 - Accessible in different languages.
 - More flexibility in terms of logging in, navigating around and/or completing sections.
 - More colourful/brighter as this makes it quite appealing.
- Offer more reminders, such as text or email, to remind people to complete their Journal.
 - This may in different ways be possible, not just plain reminder messages, for example suggestions of different areas people can check out The Journal, or hints of things you can try to help with depression.
- Provide personalised support such as a coach who people can call when they run into difficulties.
 - This may include doing follow up calls to see if the person is coping fine with the program.
 - This could also include real time chat with experts or counselors.
- Educate GPs, nurses and other staff working in the mental health space to encourage patients to use it.
- Develop problem-solving sections, enabling a user to save and work on multiple problems at one time, so people can have a chance to review other problems if they get stuck at some point.
- Create an online community group for people using The Journal for them to get in touch with each other, share stories, motivate and learn from each other.
- Rebrand The Journal with a different name and structure and make it broader with a bigger focus and scope than just “depression”.

IMPROVING THE SUPPORT TEAM

- Provide more training, awareness and education regarding mental health for the support team.
- Offer a 24-hour support helpline.

- Keep the e-chat ongoing as it helps people who may not want to talk in person.
- Enable more follow-ups and ongoing support for the people.
- Provide information on other topics such as:
 - Problems that depression can stem from such as eating disorders, anxiety, OCDs.
 - Self-help techniques such as mindfulness, meditation or breathing exercises.
- Minimize wait time as much as possible
- Expand awareness about the support team (e.g., through advertising) to ensure people know they exist.
- Provide users options of who to speak to in terms of gender, male or female.
- Make the calls more personalized, so people would open up more and are able to talk freely about their feelings.

PRODUCERS / PROVIDERS

This information is drawn from interviews, focus groups and email submissions from key informants involved in the production and delivery of the website www.depression.org.nz and The Journal and online survey of support staff who work on the National Depression Initiative.

This list also includes the observations of Sadie Litchfield and comments she has received from service users whilst working as an eCoach with Dr Simon Hatcher on an RCT of The Journal due for publication later in 2016.

USER-FRIENDLY AND TECHNOLOGICALLY ADVANCED

- The Journal needs to be accessible on mobile devices as well as tablets so people can use it when they are on the go (for example on a lunch break at work, or waiting in the Doctor's office), or when traveling.
- An app would be great too in order for people to access easily from other devices wherever they are.
- Omit the word "depression" in reminder emails.
- More space to type answers would be useful in the problem-solving section
- Needs a new and fresher look, and should be updated as time progresses.

FIXED WITH NOT MUCH ROOM TO BE FLEXIBLE

- It's too slow and rigid and does not allow people to move around freely, and jump from module to module. People don't like being "locked in" to a lesson and want the freedom to go back and forth with it.

PROBLEM-SOLVING EARLIER IN THE PROGRAM

- Provide earlier engagement of problem solving rather than just in the last module. Problem solving should be the centre of the programme and should be carried out throughout and include use of SMART plans.

MORE INFORMATION/LESSONS ON SELF-HELP

- Lesson content could be further developed with additional resources, extra videos for those who were interested in learning more facts and details about each subject.
- Extra lessons covering different topics such as yoga, mindfulness, and spirituality.
- Many people expressed that they feel socially isolated, and they do not think that they would be drawn to doing an online program without the addition of a “real live” coach.

CONNECT AND LINK

- There should be an option for people to share The Journal with their friends/family members who they thought might also enjoy using it.
- The Journal should be directly linked with primary care for the clinicians to be updated with how their patients are going with the program. This also provides a way to ensure that all the right support and guidance is there for the patients.

MORE PROMOTION, ADVERTISEMENT AND PRESENCE

- There should be more awareness about the NDI program through appropriate promotional activities, advertisements and social presence. This is to ensure that people know the program exists and they can use it when they wish to for self-help.

LESSON SPECIFIC IMPROVEMENTS

RELAXATION MODULE

- Many participants did not like the audio files, and preferred listening to other videos and audio through YouTube. So more options for people to choose different media.
- Many did not see that there were audio files to download beneath the little cartoon images of people relaxing—so they missed listening to the audio files until I showed them they had to download them.
- “Watch the task” video can be confusing as they say “practice every day” and on the “plan task calendar” it only lets you select one date to practice.

EATING RIGHT MODULE

- Recipes involved lots of steps and were time-consuming to make, so a list of quick healthy meals, and/or healthy snacks would be better and useful for people.

PROBLEM SOLVING MODULE

- Provide more flexibility around the “short summary” as it cannot be changed once it has been saved.
- Find Solutions – It only lets the user choose one of the solutions they come up with. Sometimes it needs a multifaceted approach to tackle a problem. So allowing people to select a few of their ideas and combine them into a problem-solving plan would be useful.
- Ability to save work and re-do the problem-solving unit with a new problem.
- Need more space to detail a plan that is SMART and the SMART PLAN acronym and description should be on the second page so people can look at the acronym at the same time as you are writing up their plan.

PROGRESS PAGE

- It does not explain what the numbers mean on the graph it shows i.e. is a higher number good or bad?
- People should be able to add successes to the “what you’ve achieved list” on the back page of The Journal. This could mean there should be a blank notepad where people can add what they think they have achieved that might not have been recorded in The Journal.

INFORMATION FINDINGS

STRATEGIC DOCUMENTATION

Close to 100 documents were received from the Health Promotion Agency relating to research, evaluation and service development of the National Depression Initiative. Please see Appendix F for a full list of these documents. A significant number of those are primarily focussed on the television campaign and other NDI-related matters. This section discusses those focussed on The Journal and the depression.org.nz website.

ECONOMIC BENEFITS

Vaithianathan (2010) demonstrated the economic benefits of the NDI at over \$100,000,000 for an investment of \$7,543,000. This was based on:

AVOIDING SUICIDE

The research drew on established economic benefits of \$2.9m per avoided suicide.

The annual range of economic benefits of avoided suicide attempts and completed suicides from NDI intervention is between **\$13,094,188** and **\$65,470,942**.

This benefit is if between 10% and 50% of people avoided attempting or completing suicide. This is based on the number of people who contacted the NDI who were connected to emergency services based on their risk of suicide.

EARLY INTERVENTION

This research replicated an established method for calculating extra months of health and thereby employment based on early detection and treatment of depression.

This was calculated at \$3,008.34 gross and \$1,800.34 net value for one person per year.

Offset against this was a calculation of treatment costs of early intervention of \$1,208.

The annual range of economic benefit of early detection and treatment of depression is between **\$70,000,000** and **\$814,000,000**.

For helpline phone calls alone the annual benefit was approximately **\$70,000,000**.

A KPMG 2013 review was inconclusive on the Value for Money (VfM) of the National Depression Initiative. It did recommend confirming the role of primary care practitioners, for example in supporting and monitoring people's progress.

SERVICE USER PERSPECTIVES

PILOT EVALUATION

The original formative evaluation by Phoenix Research in 2010 examined 55 people trialing The Journal for a few months before its launch. It concluded:

The overall results point to this program being a success.

This included relatively high retention rates and reports the program created feelings of hope and was motivating, safe, reassuring and useful. Every participant said they would recommend The Journal to somebody else.

81% felt The Journal helped "a lot" or "somewhat", with people saying it could be done alone and anonymously, this being seen as an advantage.

Before starting The Journal, barriers to self-help included a lack of time, family and work commitments, or linked to experiencing depression, such as having no motivation, a lack of energy, tiredness and fatigue, lack of sleep, feeling isolated, and feeling overwhelmed.

Users reported talking with their GP (up to 26%) and/or a psychologist/counselor (up to 23%). Up to 77% said the "total Journal package" (online tool, plus 0800, email, text, messaging supported) met all or most of their needs.

Feedback from the 2010 evaluation included:

"Great stuff – great program, fantastic stuff, it can help others; quite basic at the moment and its reinforcing stuff we've already known, but also demystifying things and making things seem more achievable like we often beat ourselves over lack of sleep or it's not quantity, but rather quality; so little things like that. Need to have more instructions and stuff that explains what's going on because I had to find things on my own even though stuff was simple to understand and follow. It was difficult moving from one point to another and also the technical hiccups were an issue"

"Thinking of doing some of the other options – just to see how I had followed through – trying to push ahead on some more of the program, but wouldn't let me 'cos of date I'd put in"

"The positive activities – positive thinking that JK tells us about and the way he says 'Hold onto Hope', it's the reassurance"

"You have no idea how it's changed my thinking and how I feel – I'm keeping my thoughts more positive, I'm more settled"

"That this was out of my comfort zone – as I've never done anything for myself before and that I do feel good about it"

"It's a good self-help guide – if it's helped me a little it will help someone else a lot – I'm out of that phase at the moment, and I knew about most of this, it has helped me a little by going into the Journal – it's reaffirmed it all"

"I'm going to approach WINZ to see if they can help me – I felt I wasn't up to it before, getting myself out there"

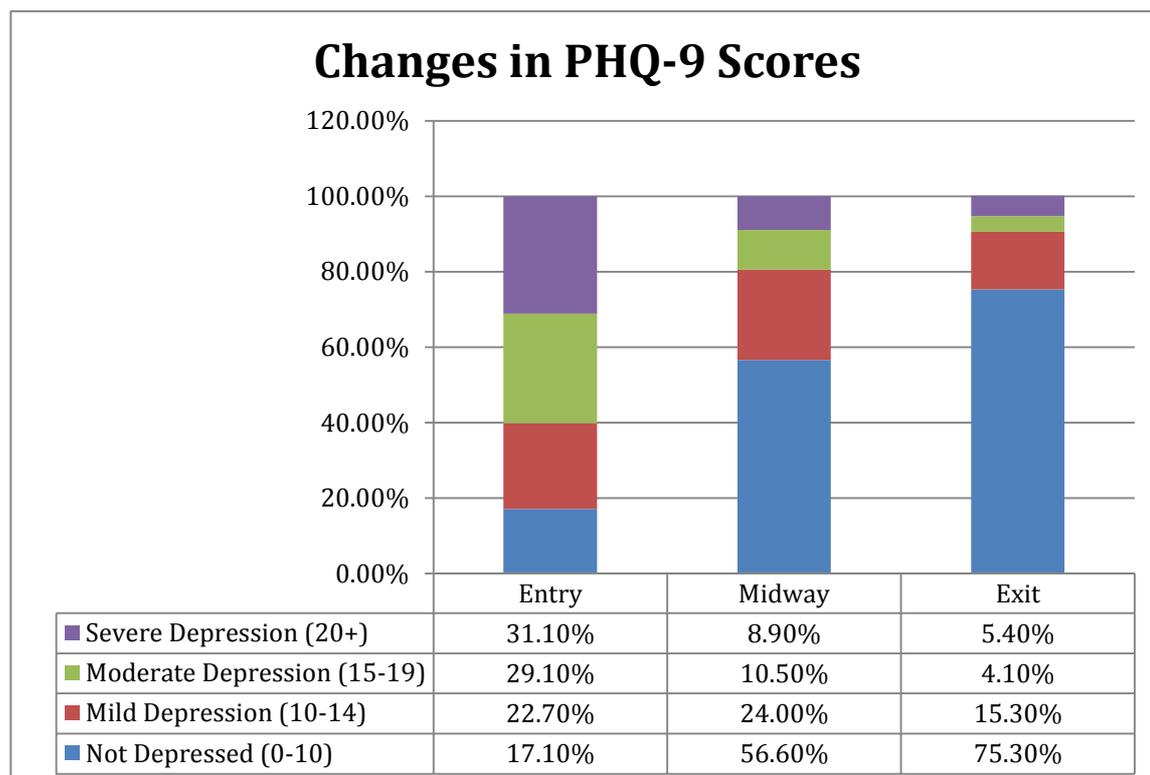
"I had one of the best weekends for a long time as I did my tasks then"

POST LAUNCH EVALUATION

A Phoenix Research (2011) evaluation at 8-months post launch examined self-reported levels of depression measured by the PHQ-9 on entry, mid-way and exit of the program. The table below shows changes in PHQ-9 scores, with an increase in 'not depressed' scores and decreases in mild, moderate and severe depression scores.

NOTE

The Phoenix report provides extensive background to the PHQ-9 tool and caution in interpreting these self-reported assessments as changes in levels of depression as would be assessed by a health professional.



The evaluation also included a survey of 213 Journal users focused on why they were not completing lessons. The top three reasons were:

1. Not had time / too busy.
2. I needed more support/ encouragement to keep going.
3. I was satisfied with what I had got from the lessons I did complete and didn't feel I needed to do more.

63% reported an improvement in their depression level from the time they registered to the time they stopped using The Journal.

80% found The Journal to be 'useful' or 'very useful' and 20% found it 'a little useful'.

ACHIEVEMENTS TO DATE (2013)

In an 'Achievements to Date' report Phoenix Research (2013) found:

Awareness of the depression.org.nz website had increased from 2% to 11% (unprompted) and 28% to 52% (prompted) and visits had reached as high as 13%. 53% said they would use a website to seek information about depression.

Awareness of The Journal was low – 0% unprompted and 2.3% prompted, though at the time the television adverts were not yet promoting The Journal.

The appeal of 0800 help lines was low (18%) and the researchers identified that people did not like talking to 'strangers' and saw them as only for crisis situations.

The connection with primary care was described. Initial concerns that the NDI would increase the burden on primary care were not borne out. This was attributed to a strong focus on self-help strategies like the website depression.org.nz and The Journal.

However, the report noted that government policy was shifting over time towards a focus on primary care as a first point of call for depression. They noted there, "is a need to review whether NDI should be more actively encouraging people to consult their doctors or others at their primary care practices" (p4).

Noting low awareness of, yet high interest in The Journal in primary care, the achievements report concluded "more input" was needed in the sector and exploring integration into patient management systems similar to the manner in which *Beating the Blues* operates.

RATIONALE AND USAGE CHANGE

An FCB report on the launch of Phase 2 (FCB, 2014) showed how a shift in program rationale had unforeseen consequences in the way people were using The Journal.

Responding to feedback from Journal users and clinical advisors to FCB, a decision was made to 'unlock' The Journal and allow people to 'look ahead' to future chapters. People still had to complete The Journal in the sequential order of lessons 1 through to 6, but could now browse through the lessons ahead.

The viewing of The Journal web pages rose from an average of 2.2 to 3.4 per visit and people chose to do more of the Lifestyle options—being active, relaxation, nutrition, sleep. However, the ability to browse led to a reduction of video watching relative to page visits, a reduction in the number of people moving from Lifestyle lessons to the Problem Solving lessons and an 'eroding of completion rates'. This was highlighted as problematic as it was known that people who did complete lessons, especially the Problem Solving lessons, had better outcomes.

It was suggested that people had started to treat The Journal like a normal website, browsing the pages and reading the information, rather than a structured program that facilitated greater absorption of information and initiation of action.

LITERATURE

This section provides an overview of a search of the national and international literature in peer reviewed journals and where available, grey or unpublished literature. This was a pragmatic search to identify and describe literature, rather than a classic academic literature search and analysis. Please see Appendix C for search criteria.

DEFINITIONS

This report uses the following adapted definition of e-mental health:

Mental health services and information delivered or enhanced through the Internet and related technologies.

Christensen et al. (2002)

This report uses the term ‘mental health’ as it is found in the international literature as an umbrella term to refer to both mental health and addictions.

A more recent definition shows two broad groupings based on whether the service is staffed or not:

The range of automated evidence-based Internet programmes that are used to provide therapeutic content directly to consumers, either with or without involvement from a clinician.

Batterham et al. (2015)

However, this definition requires detailing what is meant by “therapeutic content” and by specifying just ‘Internet’ it does not allow for the ‘related technologies’ such as SMS text systems and offline software applications (apps).

Whilst the term ‘telehealth’ forms part of the literature focus, it is only utilised where it relates to the provision of a health service to a person experiencing mental distress or addiction. Telehealth as a term can be too broad and include anything relating to health services, often omitting a service user focus entirely as this definition illustrates:

The term [telehealth] comprises the transmission of images, voice, and data between two health units via technology to provide educational, clinical, training, administrative, and consultation services.

Dielman et al. (2010)

ROLE FOR E-MENTAL HEALTH

An interesting and important part of the literature deals with the potential role for e-mental health and addictions. The definition used above is derived from Eysenbach’s seminal paper on ‘e-health’, which put forward a definition, description and role:

e-health is an emerging field. . . referring to health services and information delivered or enhanced through the Internet and related technologies.

In a broader sense, the term characterizes not only a technical development, but also a state-of-mind, a way of thinking, an attitude, and a commitment for networked, global thinking, to improve health care locally, regionally, and worldwide by using information and communication technology.

Eysenbach (2001)

The role in ‘improving healthcare’ is explicit in this definition and reinforced in recent reflections on the role of e-mental health. A primary driver and potential benefit of e-mental health is in addressing resourcing issues and the imperative to ‘do more for the same or less resources’:

If we are to substantially reduce burden we need to develop more accessible, empowering, and sustainable models of care. E-health technologies have specific efficiencies and advantages in the domains of promotion, prevention, early intervention, and prolonged treatment. It is timely to use the best features of these technologies to start to build a more responsive and efficient mental health care system.

Christensen and Hickie (2010)(1)

This potential was reiterated in a recent rapid review of the literature:

Many believe that e-mental health has enormous potential to address the gap between the identified need for services and the limited capacity and resources to provide conventional treatment.

Lal and Adair (2014)

In discussing ‘what’s all the fuss about?’, the UK’s National Health Service set out the context for defining the potential roles for e-mental health:

Digital technology has revolutionised the way we conduct our everyday lives. The expectations service users and their families have of mental health services, and how they interact with them, are also changing rapidly . . . [it] could help us address resource challenges . . . and also has the potential to support cultural transformation and a move towards a social model of health, by empowering service users to exercise greater choice and control and to manage their own conditions more effectively.

National Health Service (2013)

Again, there is the recognition of the potential to ‘address resource challenges’. Furthermore, noting a key driver for e-mental health is the ‘expectations of services users and their families’; there is also a clear indication of the potential for a transformation based on empowerment and self-efficacy.

Recent work in Canada has also contributed to the discourse of determining the role of e-mental health and Appendix D has some additional reference material. The current Mental Health Strategy emphasises the use of technology in mental health as a way to promote collaboration, engagement and interaction between people to improve health outcomes.

Technology makes collaboration easier and can be a tool for supporting self-management.

The emerging world of e-health offers new opportunities for interaction and engagement between people who need services and providers. Electronic health records, telemedicine, Internet-based screening and treatment, videoconferencing, and on-line training are all tools that can enhance collaboration, access and skills.

Mental Health Commission of Canada (2012)

The strategy went on to thread the way technology could assist mental health through six areas of strategic development:

- To foster collaboration.
- Increase access to services.
- Engage people in managing their mental health problems or illness.
- Building better infrastructure.
- Providing ongoing training and support.
- Greater flexibility in how services are funded.

Two years later an e-mental health briefing paper highlighted the role of technology in fostering self-empowerment, with informed service users and the legitimising of their knowledge of their own experiences:

E-Mental health provides patients the opportunity to be empowered by the provision of health information, so that health providers are no longer the sole holders of knowledge regarding disease and illness.

Mental Health Commission of Canada (2014)

The six areas of strategic direction were mapped onto potential uses and benefits of e-mental health:

Strategic Direction	E-Mental Health Potential
1. Promotion and Prevention	Promote “healthy thinking”, treat early onset disorders
2. Recovery and Rights	Chronic illness management
3. Access to Services	Improve access in time (waiting lists) and geography
4. Disparities and Diversity	Opportunity to personalize health care and tailor support for different communities
5. First Nations, Inuit and Métis	Opportunity for remotes services – e.g. through robots, culturally acceptable interventions
6. Leadership and Collaboration	A whole government approach is required to manage how technology is used in mental health care

EVIDENCE BASE

NOTE: Dr Simon Hatcher, one of the original developers of The Journal, is completing a randomised controlled trial of The Journal in Canada. Data collection is due to be completed at the end of June 2016 with findings written up for publication to follow later in 2016.

This will be useful input into evidence gathering for The Journal. It includes a ‘go it alone’ pathway that is self-directed and a ‘supported’ pathway that involves an outbound weekly call from an e-coach. This supported pathway is different from current support options, though from interviews with original developers was something that was envisioned at the start.

An interview with the study's e-coach as part of this review indicates useful findings, particularly in terms of supporting retention.

In January 2014, Canada-based academics Lal and Adair published a rapid review of the e-mental health literature and concluded:

E-mental health applications are proliferating and hold promise to expand access to care.

Lal and Adair (2014)

Over a decade on from the first definition of e-mental health, it is still described as 'promising' and in large part this relates to the burgeoning evidence base.

This section provides an overview of e-mental health evidence, mainly focusing on systemic reviews or meta-analyses rather than individual services or initiatives, which can be found in the next section 'Comparable Services and Initiatives'.

However, in order to give a context for the evidence base, two papers will demonstrate a growing theme in the literature. The gathering of evidence for e-mental health appears to be shifting from simplistically asking, "does it work?" to "in which ways and which circumstances does it work?"

TAKING A BALANCED PERSPECTIVE

Two papers were identified that reported negatives about e-mental health:

- Jones et al. (2012) found people expressed a preference for in-person screening over videoconference-based screening and that video-based screening alone was more expensive than in-person screening.
- Gilbody et al. (2015) concluded that GP care supplemented by supported computerised cognitive behaviour therapy (Beating the Blues and MoodGym) had low/no benefits compared with GP care alone.

Rather than see these research findings as an attack on e-mental health systems, it is important to see them in their context and how they can contribute to improving e-mental health service delivery.

Gilbody et al. (2015) found:

- At four months: "no additional improvement in depression compared with usual GP care" (p1). Level of depression was the primary focus of analysis.
- At twelve months: "significant benefit... for mental health quality of life and generic psychological wellbeing" (p10). Quality of life and psychological wellbeing were the secondary focus of analysis.

This led to wide scale reporting in the health industry press with headlines like:

GP researchers slam online CBT programs for depression¹

¹ www.australiandoctor.com.au/news/latest-news/online-cbt-fails-the-gp-test

The useful context for this study is the way support was given as a “form of supported self-help but was not one that was guided by a clinician” (p11). Participants were offered technical support via telephone but the researchers “purposely did not augment structured psychology therapy using trained psychological therapists” (p. 11).

This relevance here is the difference between this and The Journal where 24/7 support is offered by a range of trained and qualified health professionals via freephone, text, email and until recently web chat. As Gilbody et al noted:

Systematic reviews have shown that unsupported self-help treatment (including unsupported computer delivered self-help) has minimal effects and a relatively small effect size.

In contrast, efficacy trials have shown that more intensively supported treatments generally have moderate effect sizes claimed to be comparable with face-to-face therapy. (p11)

The authors went on to list a range of alternatives to “unsupported self-help treatment” and included (emphasis added):

*Telephone guided self-help, bibliotherapy, **low intensity psychological workers supporting self-help technologies**, and therapist delivered cognitive behaviour therapy. (p12)*

The phrase *low intensity psychological workers supporting self-help technologies* could be applied to The Journal support team.

A more accurate, less pithy, headline could read:

GP researchers slam unsupported online CBT programs for depression, though even this may improve quality of life and general psychological wellbeing.

In Jones et al. (2012), the comparison was in-person screening by staff and screening by staff on a videoconference. Any costs savings could only ever be marginal if at all achievable given the largest cost (staff time) was still involved, and their delivery involved both staffing for technicians at the patient end of the call and consultations that took longer on average via videoconference.

They noted that in-person screening was only a preference for those who had not experienced videoconference-based screening. Those who had experienced the latter were more ambivalent about their preference.

The researchers also noted that e-mental health is less well received by a general population than it is by individuals who are seeking care (Rohland et al., 2000). So it could be that the *idea* of e-mental health is less appealing to those who are not currently seeking help or have not experienced it. This suggests greater focus on self-led e-screening and additional efforts to support help seekers new to e-mental health.

We urge caution in considering the evidence for e-mental health, good and bad, and for maintaining a focus on the context in which the evidence is found. We are also mindful that the current evidence base regarding e-mental health services is limited.

We will be able to have greater confidence in the conclusions that can be drawn when there is a larger total evidence base.

Single Interventions Rather than Systemic

Lal and Adair's (2014) rapid review covered 115 e-mental health articles published between 2000 and 2010. This included 108 (94%) that were peer-reviewed, with 91 (84%) of these published in the last 3 years, mostly (76%) originating in the United States, the Netherlands, or Australia.

Most of the literature reviewed described the development, implementation, and evaluation of single interventions in isolation.

One very important question that has been given limited attention is how e-mental health interventions might best be situated in relation to an array of related services for a broad population.

Lal and Adair (2014)

This is pertinent to the National Depression Initiative as it sits largely outside traditional primary and secondary care. The 'rare exception' is a study in the Netherlands (van Straten, 2010) into a stepped-care approach to depression in primary care.

This study was in the early stages and no subsequent papers are available. This example also demonstrates that, along with an absence of population-based approaches, most interventions are restricted to a single focus:

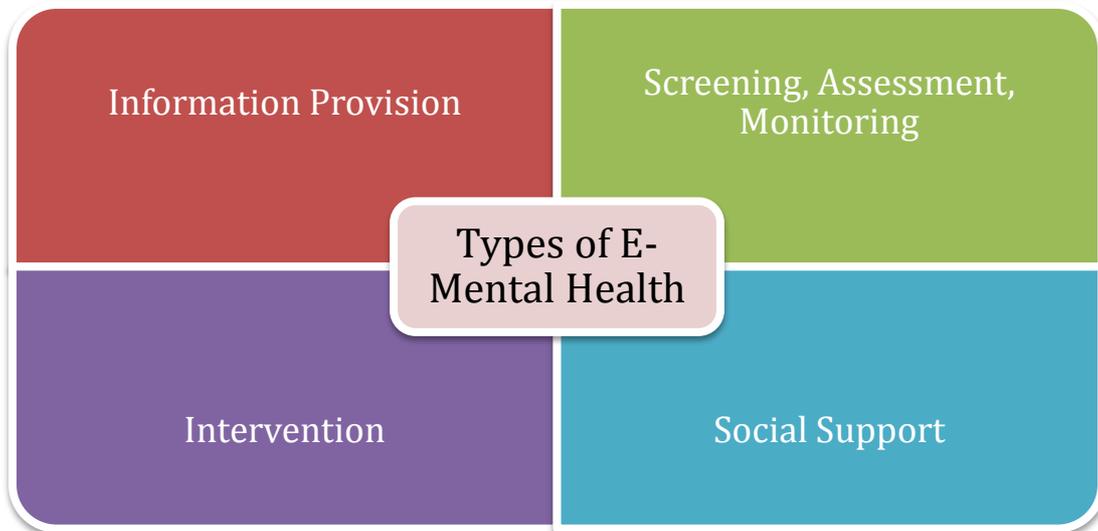
Typically, e-mental health interventions mimicked traditional treatment approaches in that they often addressed single disorders; none were designed for individuals with co-morbid mental and substance use disorders. (Ibid, p26)

Along a similar vein, Reid et al. (2013) investigated introducing a mobile phone app in a youth mental health service situated in primary care. Participants recorded a range of data once a day, encompassing information on mood, stress levels, coping strategies, and daily activities, as well as eating and drug use.

GPs were given access to this information and were found to better understand their patients' mental health, and make better decisions about referrals and diagnoses (van Kessel, Krägeloh, and Babbage, 2016).

Typology

Lal and Adair (2014) put forward a useful typology, identifying four areas:



The table below provides a brief overview of each type:

Type	Overview
Information provision	There is an identified need to ensure the quality of information, for example using tools like Brief DISCERN (Khazaal et al., 2009).
Screening, assessment, and monitoring	These have been available for many years on stand-alone computers and now through the Internet providing broader access for self-assessment (particularly to under-served or hard-to-reach groups) and use by professionals in specific settings such as primary care.
Intervention	<p>Includes:</p> <ul style="list-style-type: none"> • Self- and therapist-led • Primary therapy or adjunct to in-person therapy • Delivered to individuals and groups <p>Recent systemic reviews and meta-analyses of randomised controlled trials have demonstrated effectiveness for particular interventions addressing depression and anxiety disorders.</p> <p>Preliminary evidence has also been reported for the effectiveness of Internet-based interventions to address issues such as stress, insomnia, and substance abuse.</p>
Social support	For example, web-based discussion groups, chat rooms, blogs, social media, and bulletin boards.

AUTOMATED THERPAY

Project Lead Associate Professor Babbage has recently co-authored a chapter entitled 'eTherapy and Psychological Practice' due for publication in September 2016 (van Kessel, Krägeloh, and Babbage, 2016). This section contains content applicable to this review in

relation to automated therapy, both self-guided and supported, and its suitability based on different service user factors, such as cultural background, socioeconomic factors and presentation severity.

Self-Guided Automated Therapy

van Kessel, Krägeloh, and Babbage (2016) discussed the range of ways in which online and mobile technologies might be integrated in mental health practice. Among these, they discussed self-administered therapeutic interventions, which they referred to as self-guided automated therapy:

- Self-guided automated therapies are therapeutic interventions where service users work their way through a programme on their own, without support, guidance or feedback from a human therapist (van Kessel, Krägeloh, and Babbage, 2016).
- Despite this independent mode of working, van Kessel, Krägeloh, and Babbage (2016) noted self-guided automated therapies generally include tailoring to each individual through some degree of automated feedback, which are typically focussed on creating change in thinking, behaviour and emotion. They are usually highly structured and typically based on CBT principles (Barak et al., 2009).
- Self-guided interventions based on other theoretical models have also been developed to a lesser extent (van Kessel, Krägeloh, and Babbage, 2016)—for example, psychodynamic psychotherapy (Johansson et al., 2012) and mindfulness (Boettcher et al., 2014).

Supported Automated Therapy

Alongside fully automated approaches, van Kessel, Krägeloh and Babbage (2016) also review a range of human-supported approaches to eTherapy, noting that any technology-guided therapy approach can incorporate human support. These can include human-generated email contact, text messages or telephone contact from a therapist, or even face-to-face sessions (van Kessel, Krägeloh, and Babbage, 2016).

In contrast to traditional therapy, however, the main focus of therapist input in such systems is to provide support, guidance and feedback to the user, rather than deliver the primary intervention content itself (van Kessel, Krägeloh, and Babbage, 2016).

As a result, therapist time is substantially reduced. This is one of the attractive features of computerised CBT, at least from the point of view of cost-effectiveness (van Kessel, Krägeloh, and Babbage, 2016). Such contact may be as little as 5–10 minutes per week in web-based CBT, for example, in comparison to 45–60 minutes for face-to-face delivery (Hedman, Ljótsson, & Lindfors, 2012).

Writing primarily for applied psychologists, van Kessel, Krägeloh and Babbage (2016) note many practicing psychologists may be sceptical that online and primarily automated therapy systems could replace traditional face-to-face delivery, particularly given the weight of recent evidence on the importance of the therapeutic relationship as a key determinant of outcome in such services.

They discuss however the strong connections people can experience to characters in novels, television, movies and documentaries as examples of ways that a strong sense of connection may be formed in the absence of a synchronous human connection. Finally, they note the thriving ecosystem of self-help literature as being the clearest precedent for arguing for the potential acceptability, and potential efficacy, of automated therapy

sessions. van Kessel, Krägeloh and Babbage (2016) argue that automated therapy systems should be viewed as the natural evolution of self-help books and resources, more than viewing them as a variant on individual therapy.

Finally, van Kessel, Krägeloh and Babbage (2016) argue that fully automated therapy services do not need to be directly compared to human therapists, since even in more economically developed countries such as New Zealand, eTherapy services are typically being used to deliver services that otherwise could not be delivered at all—due to human and financial resource limitations. Reaching a wider pool of people will thus result in better outcomes, including people with less severe mental health issues who otherwise may receive no psychotherapeutic treatment at all (van Kessel, Krägeloh and Babbage, 2016).

Suitability for Automated Therapy

van Kessel, Krägeloh and Babbage (2016) consider the suitability of automated therapy based on cultural background, socioeconomic factors and presentation severity.

1. Cultural Background

van Kessel, Krägeloh and Babbage (2016) discussed the importance of cultural background in considering which service users may be appropriate for self-administered eTherapy services. They identified multiple factors relevant to such considerations:

- Attitudes towards technology vary across cultures and thus are themselves a barrier to culturally-appropriate eTherapy (Yellowlees, Marks, Hilty, & Shore, 2008)—it is possible that in some cultures, eTherapy approaches may be seen as an inappropriate way to manage mental health issues.
- Methods of forming online relationships, or even the desirability of doing so, may be viewed differently across cultures (Yellowlees et al., 2008). This is potentially particularly so for Māori (van Kessel, Krägeloh and Babbage, 2016), given the process of sharing background and family connections is an important part of forming relationships, including therapeutic relationships (Bennett, Flett, & Babbage, 2008; Bennett, Flett & Babbage, 2014; Bennett, Flett & Babbage, In press).
- Building flexibility into the development and delivery of eTherapy systems is important to cultural responsiveness (van Kessel, Krägeloh and Babbage, 2016), to enable cultural attitudes towards health and illness to be taken into account, alongside differences in the degree to which cultural groups are traditionally past- or future-oriented as opposed to present-oriented (Yellowlees et al., 2008).
 - Māori and other cultural groups hold a more holistic perspective of health and ill health, both physical and mental, than has been typified in traditional Pākehā health services (van Kessel, Krägeloh and Babbage, 2016).
 - Outside of the eTherapy field, adaptations to therapeutic approaches such as CBT have been successfully made for working with Māori in a culturally congruent way (Bennett et al., 2008; Bennett et al., (2014); Bennett et al., Under review; Cargo, 2008; Mathieson, Mihaere, Collings, Dowell & Stanley, 2012) and such adaptations should likewise be implemented in eTherapy systems (van Kessel, Krägeloh and Babbage, 2016).
 - The collaboration between the Metia Interactive and the University of Auckland in developing SPARX is an example of Māori becoming more

involved in the development of culturally relevant digital programmes (Mahuta, 2012).

- Development and evaluation of eTherapy programmes that are responsive to the diversity of cultural groups in Aotearoa/New Zealand rightly deserves attention (van Kessel, Krägeloh and Babbage, 2016).
- Approximately half of the eTherapy programmes Christensen and Petrie (2013) identified were developed in Australia. van Kessel, Krägeloh and Babbage (2016) suggested that these programmes may therefore transfer relatively easily for use in New Zealand, particularly for Pākehā users.
- A specific investigation of barriers to such cross-Tasman transfer has actually occurred for an adaptation of the New Zealand-developed SPARX programme for youth in rural Australia, where the NZ accents and style were not perceived as a barrier. Research is needed to confirm if the reverse holds (van Kessel, Krägeloh and Babbage, 2016).

2. Socioeconomic Factors

van Kessel, Krägeloh and Babbage (2016) further examined socioeconomic factors in relation to the development of eTherapy systems, noting:

- It would raise ethical challenges if socioeconomic factors limit access to the technology necessary to utilise eTherapy interventions, since this might result in further disparities for already disadvantaged groups.
- In New Zealand, living in a rural area, living in areas of high levels of deprivation, and being Māori or of Pacific Island origin are all factors associated with a lower proportion of Internet access at home. However, recent trends see this so-called digital divide continuously decreasing.
- In the 2006 New Zealand Census, 60.5% of households reported Internet access, a figure that had increased to 76.8% by 2013 (Statistics New Zealand, 2013a). A third of New Zealanders had an Internet-connected mobile phone by 2012 (Statistics New Zealand, 2013b), and all indications are this figure will be still higher today (van Kessel, Krägeloh and Babbage, 2016).
- Among groups that might be assumed unreachable via the internet, some people are making use of online services. For example, homeless people are increasingly accessing the internet via free WiFi hotspots in public spaces (Humphrey, 2014).

3. Presentation Severity

The New Zealand Psychologists Board (2012) recommends that people with severe mental health difficulties should be screened out from eTherapy systems and referred instead to engage with mental health services through traditional routes. They suggest this should include people with severe psychiatric disorders, borderline personality disorder, thought disorder, suicidal ideation, and unmonitored medical conditions.

This does not prevent those services from utilising technology-based provision alongside traditional modes of delivery to enhance service user outcomes (van Kessel, Krägeloh, and Babbage, 2016).

STRENGTHS AND CONCERNS

The strengths and concerns reported in the literature are summarised by Lal and Adair (2014):

Strengths	Concerns
Improved accessibility	Potential lack of quality control and standards
Reduced costs, following start-up Research and Development costs	Ethical and liability issues
Flexibility in terms of standardisation and personalisation	Reluctance among some healthcare professionals "technological phobia"
Interactivity and consumer engagement	Worries that conventional services could be completely replaced
Considered especially promising for: <ul style="list-style-type: none"> • Rural populations • Individuals with barriers to access • People afraid of stigma • Youth 	Some question the ability of professionals to establish therapeutic relationships online and the feasibility of online treatment for certain population groups (e.g. patients with severe depression).

Simon and Ludman (2009) raise the importance of disruptive innovation in psychotherapy and identify important issues related to introducing different technologies in improving mental health outcomes.

They report that evidence-based psychotherapies have spread minimally to community providers and is generally perceived as an expensive treatment as face-to-face psychotherapy demands a large amount of time and motivation, and the latter is a scarce resource for people living with depression.

They state that communication technologies (old and new) have the potential to bypass these barriers and expand the reach of effective psychotherapy, with efficacy shown in telephone based psychotherapy (most often cognitive-behavioural therapy) and benefits of internet-based therapies, especially when supported by telephone or e-mail reminders and outreach.

They note greater convenience for service users across three levels of therapist involvement:

- High – synchronous or real time interaction such as telephone
- Low – asynchronous or delayed interaction such as SMS text message or email
- No – fully automated therapy programs with no staffing

Whilst challenging, they argue that by increasing access and lowering costs, new communication technologies could provoke some much-needed disruptive innovation in psychotherapy.

RANGE

In the consideration of typology, it was reported by Lal and Adair (2014) that most evidence of effectiveness was around interventions addressing depression and anxiety disorders with preliminary evidence emerging for Internet-based interventions to address issues such as stress, insomnia, and substance abuse.

Krieke et al. (2014) also reviewed the evidence base with a focus on psychotic disorders. This was a smaller sample of 28 studies assessing several types of interventions, including:

- Psycho-education
- Medication management
- Communication and shared decision making
- Management of daily functioning
- Lifestyle management
- Peer support
- Real-time self-monitoring

The authors' conclusion is typical of evidence-based papers for e-mental health:

People with psychotic disorders were able and willing to use e-mental health services. Results suggest that e-mental health services are at least as effective as usual care or non-technological approaches. . . No studies reported a negative effect. Results must be interpreted cautiously, because they are based on a small number of studies.

Krieke et al. (2014)

EFFECTS OF TELEHEALTH ON QUALITY OF LIFE

Durland et al. (2104) reviewed nearly 300 studies and articles on telehealth services for people diagnosed with depression and anxiety. They found:

- Telehealth holds significant promise for reducing mental health care disparities and improving the Quality of Life for individuals with depressive and anxiety disorders.
- This includes elderly and those with chronic medical conditions, and may be particularly advantageous for those with medical and psychiatric co-morbidities.
- Telehealth psychosocial interventions and therapies are helpful in addressing barriers to face-to-face treatment and positively impact on depression. This includes skills-based CBT and emotion-focused therapy (short-term—8–20 sessions—structured psychotherapy).

They noted that the perceived lack of the “human touch” was a common concern in that it may impact on the attractiveness of telehealth for the person. Their review however found equivalent or lower attrition rates than face-to-face individual psychotherapy, suggesting acceptability or attractiveness is not an issue.

They recommended additional research on videoconferencing, strategies to increase uptake and implementation, standardising definitions, developing systematic approaches for measuring cost-effectiveness and legal reform to establish fair reimbursement for telehealth services.

RURAL WELLBEING AND ACCEPTABILITY

Sinclair et al. (2013) cited research on rural wellbeing as identifying problems with accessing conventional mental health services, due to service provision shortages, attitudinal factors, financial and geographical barriers, and concerns about anonymity. Whilst online mental health resources could address these they found clinicians tend to express lower satisfaction with online mental health resources than service users.

They found that whilst rural clinicians were optimistic about the use of online mental health resources to address these barriers, they had concerns and preferred to see them as adjuncts rather than alternatives to traditional forms of mental health service delivery. They would prefer to see these integrated with existing services, for example providing public computers in clinic waiting room.

Barriers for clinicians include a lack of time to explore resources, difficulty accessing training in the rural locations, and concerns about the lack of feedback from service users. Social pressure exerted within professional clinical networks contributed to a cautious approach to referring people to online resources.

Service users identified the important ongoing role of the clinician as a provider of support and facilitator of deeper understanding of information accessed through online mental health resources. The authors argued that the socially defined role of the clinician is moving to being a facilitator of service-user directed information seeking and decision-making. This was seen as a starting place for more effective referrals, greater uptake and reduced attrition.

They recommended that promotion includes information about resource effectiveness, explores easy to integrate with existing services and provides opportunities for renegotiating the socially defined role of the clinician in the eHealth era.

They concluded with a helpful distinction between 'usefulness' and 'usability', that the latter should not be sacrificed in pursuit of the former:

The technology acceptance model suggests that both perceived usefulness and perceived usability will contribute to adoption of the technology. This suggests that promotion of online mental health resource "usefulness" (by communicating results of clinical trials) should not be at the expense of the more basic enabling work, which underlies the perception of "usability" within the everyday clinical environment.

THERAPY VIA VIDEOCONFERENCING

Although the current NDI services do not have videoconferencing services, they have been trialed in the past as part of The Lowdown (circa 2008/9) and the idea is periodically revisited.

Yuken et al. (2013) piloted an acceptance-based behavioral intervention using Skype videoconferencing with adults diagnosed with generalized Social Anxiety Disorder. Their focus was on feasibility, acceptability and efficacy and they concluded:

"Remote treatments, which allow individuals to connect with treatment providers from the comfort of their own homes, is a modality that has great potential to bridge the gap between quality psychological treatments and those in need".

They identified a number of barriers common across similar studies, including:

- Logistical, such as lack of finances, transportation, or time and long travel distances due to:
- Limited availability of therapists across different locations who specialize in specific disorders such as Social Anxiety Disorder
- Concerns about stigmatization or anxiety related to travel or in-person interactions.

They found improvements in social anxiety, depression, disability, quality of life and experiential avoidance after 12 weeks of weekly therapy and this is comparable to or larger than previously published results of studies delivering in-person CBT.

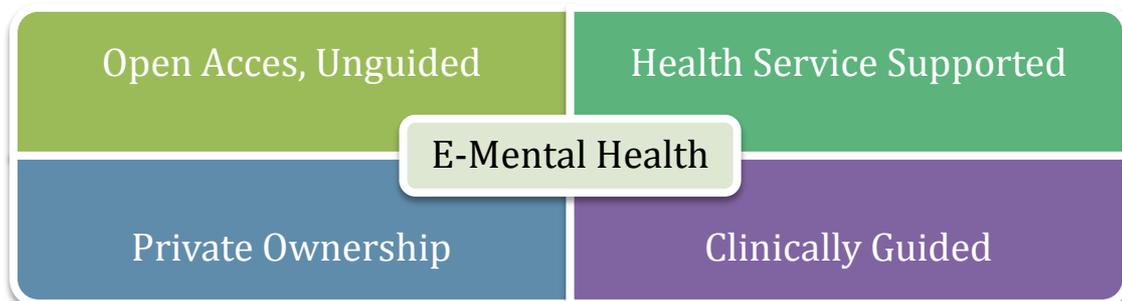
These positive effects were still observed at three-month follow up evaluations.

A number of advantages and disadvantages were also reported:

Advantages	Disadvantages
<ul style="list-style-type: none"> • Allowed exchange of visual non-verbal communication unlike telephone or website-based treatment. • Facilitates communication, provides opportunities to assess nonverbal social skills (e.g., eye contact, posture, facial expressions) and provides opportunities to practice these skills. • Allows the use of ‘exposure exercises’ (anxiety-provoking social stimuli) that involve friendly and unfriendly nonverbal communication. 	<ul style="list-style-type: none"> • ‘Exposure exercises’ were limited, e.g. couldn’t do exercises outside, for example on a public street or a specific location related to person’s fears. These became ‘homework’ type exercises. • Scenario based role-playing could be done but there are limitations on using additional role-players, which are sometimes used during in-person therapy.

TRANSLATIONAL RESEARCH

In 2015 researchers at the National Institute for Mental Health Research conducted a review focused on the translation of e-mental health services for depression and “strategies for wider reach and uptake” (Batterham et al., 2015). They identified four models of e-mental health for treating depression (see Appendix E for more details).



BARRIERS AT THE CONSUMER, CLINICIAN AND SYSTEM LEVEL

Batterham et al. (2015) went on to identify barriers at the consumer, clinician and system level. This material is summarised below, quoted from Batterham et al. (2015) using their own words.

Consumers

Consumers may be reluctant to use services because of:

- The stigma of depression
- The stigma of seeking help
- Low mental health literacy and poor symptom recognition
- Lack of awareness of existing evidence-based e-mental health programmes as an effective treatment source, scepticism regarding the performance of e-mental health services over traditional approaches
- Lack of established pathways to using e-mental health services in the community

Quoted from Batterham et al. (2015) using their own words.

Clinicians

Clinicians may be resistant to e-mental health services because of:

- A lack of awareness of e-mental health services
- Lack of training
- Resistance to changes in practice
- Concerns around efficacy
- Confidentiality and safety (indemnity)
- Lack of the financial incentives that are currently available for face-to-face services
- Viewing e-mental health as a threat to face-to-face services
- Viewing e-mental health technologies as damaging or impeding the patient–clinician therapeutic relationship
- Lack of established pathways to provision of e-mental health services

Quoted from Batterham et al. (2015) using their own words.

Systems

Systemically there needs to be:

1. Endorsement, education and funding

- There needs to be greater acknowledgement of the need for evidence-based psychosocial programmes to be made available.
- Endorsement by Government entities of current evidence-based e-mental health programmes as one of the preferred first-line treatments for subclinical, mild and moderate depression, and as an adjunct for severe depression, would assist in promoting the use of these programmes.
- Such endorsement would be consistent with guidelines developed by professional associations and National Institute for Health and Care Excellence (NICE) guidelines for the treatment of depression, which recommend computer-based CBT in treatment

of subclinical, mild and moderate depression (National Collaborating Centre for Mental Health, 2010).

- All implementation activities require funding, as do the programmes themselves, as it is not possible to maintain, update or optimise e-mental health programmes without ongoing investment.

2. Accreditation of e-mental health programmes

- Parallel to endorsement, education and funding is the need for a Government-supported accreditation process. Such a process of quality assurance must underpin the delivery and funding models used in providing e-mental health services.
- A new accreditation scheme developed by a range of government, research, clinical and consumer stakeholders may feed directly into funding models and identification of service pathways. Such a scheme may require a nuanced approach to the recommendation of appropriate e-mental health programmes, to accommodate rapid adaptation to changing technologies, recommendations for additional support alongside the approved programmes and appropriate methods of integration of recommended programmes into a range of practice settings.

3. Developing the field of translational research

- Further developments in the discipline of translational mental health are also warranted. Activities such as conferences and publications could provide a focal point for the promotion of translation of evidence-based mental health programmes into practice and healthcare systems.
- The rapid and relevant research paradigm (Glasgow et al., 2014; Tomlinson et al., 2013) incorporates multiple small-scale experiments among diverse users and settings and studies to rapidly test and refine various components of health interventions and new technologies. Such approaches to research may progress translation more effectively than traditional large-scale trials.

Specific areas of research may include:

- Additional cost-effectiveness research.
- Testing other outcomes such as reach, adoption and maintenance of use.
- Testing different delivery and referral models such as stepped-care and clinical staging.
- Developing more rapid screening and monitoring.
- Evaluating the tailoring of e-mental health programmes.
- Research on engagement and adherence particularly in vulnerable and underserved populations.
- Development of user-led translation of e-mental health services.
- Developing better methods to account for co-morbidity.
- Testing new technological elements.
- Research on education and marketing.
- Testing ways to blend self-help with therapist contact.

Quoted from Batterham et al. (2015) using their own words.

ONLINE ADVERTISING AND ACCESSING DEPRESSION SERVICES

Jones et al. (2012) conducted a study to understand whether adverts increase the probability of finding online cognitive behavioural therapy for depression based on the increase in searching for information on depression online (5th most common topic in 2005). Working with 3,868 'naïve users' people and a control panel of 12 'knowledgeable users) they found that people with depression are unlikely to find online CBT by chance.

The study demonstrated that even a knowledgeable person may have to search quite hard to find online CBT, and it would be difficult, or extremely unlikely, for a naïve user of depression websites to find online CBT websites easily using a Google search. The probabilities of finding online CBT using Google were 0.29 for knowledgeable users and 0.006 for naïve users. Adding adverts that linked directly to online CBT increased the probabilities to 0.31 (knowledgeable) and 0.02 (naïve).

The study had limitations, such as focusing on Google alone and not the wider-reaching Google Display Network or not including other online advertising, such as Facebook. However, the researchers consider that a nearly threefold increase in the probability of finding online CBT by the addition of a Google Advert is likely to lead to more people with depression registering and using online CBT.

Online adverts may compete both with other adverts as well as with the results of organic search, and health service providers considering the use of online adverts need a strategy that calculates the added (marginal) benefit and cost.

NEW ZEALAND ONLINE – 'ANYWHERE, ANYTIME'

Gibson et al. (2013) reported on online activity in New Zealand as part of the World Internet Project, a longitudinal study with biannual surveys investigating Internet usage and attitudes. (The 2015 report is "temporarily unavailable while being updated".²)

The 2013 report found 92% of New Zealanders report currently using the Internet with a further 3% having used the Internet at some time in their lives. In the most recent international comparison (WIP, 2012) New Zealand had the third highest rate of Internet use, just 1.4% behind Australia and 14.5% higher than the UK. It is notable that 'non-use' is higher in Māori (14%) and Pasifika (14%) communities than European (7%) and Asian (3%) communities. Internet usage has increased across all ethnic groups, particularly in Māori and Pasifika communities:

Ethnicity	Percentage of Internet Users* ³	
	2007	2013
Māori	62%	86%
Pasifika	72%	86%
Pakeha	77%	93%
Asian	94%	97%

² <http://icdc.aut.ac.nz/home/projects/world-internet-project>

³ 2007 data from Smith et al., (2010) | 2013 data from Gibson et al., 2013

With 80% of people spending an hour or more online everyday and increasingly on smartphones (68%) and tablets (48%), lead researcher Professor Bell noted that:

With Internet use in New Zealand almost reaching saturation point, it is interesting to see how technology such as iPads, smartphones, gaming consoles and other wireless devices are influencing people's behaviour.

Seventy percent of users surveyed in this study said they accessed the Internet with a hand-held mobile device at least some of the time. This enables them to find and share information, and communicate with each other 'anywhere, anytime'.

Bell (2013)—Press Release for Gibson et al, (2013)

Just over half of New Zealanders (51%) use the Internet to search for health information, comparable with Australia (52%; WIP, 2012).

The majority (73%) say the Internet is important or very important in everyday life with most (81%) rating the Internet as important for information, more so than television (47%), radio (37%) and newspapers (37%; Gibson et al., 2013).

COMPARABLE SERVICES AND INITIATIVES

A recurring theme in interviews with the original producers and current providers is how incomparable The Journal program is, being situated with an integrated population marketing campaign with 24/7 counselling services via many communication channels.

To provide a context in which The Journal sits, this section outlines a system review and meta-analysis by Richards and Richardson (2012) of computer-based psychological treatments for depression and on the available randomised controlled trials. They identified 18 different types of intervention (mostly online cognitive behavioural therapy-based programs) from 40 studies in 45 published papers, and described the technologies employed and delivery of content. One was a group program, the rest were for individual use and a range of support types included asynchronous, synchronous and face-to-face. Participants were recruited from primary and secondary care, the wider community and some specific populations.

The researched of these is **Beating the Blues** (BTB; Proudfoot et al., 2004), with 3 RCTs and 10 open trials. Initially developed as a CD-ROM, in recent years it has been transferred to the web. Briefly, it comprised eight sessions of cognitive behavioural therapy (CBT). It included a series of filmed case studies of individuals modelling the symptoms of depression and also the application of the CBT strategies. It included online exercises and homework tasks alongside a printable post-session summary sheet (Cavanagh et al., 2006).

Next most researched programs include:

1. **MoodGYM** (2 RCTs and 2 Open Trials; Christensen, Griffiths, and Korten, 2002).

MoodGYM included modules on cognitive behavioural training, a personal workbook and graphic site characters who modelled patterns of dysfunctional thinking. The content was delivered through text, animated diagrams and interactive exercises, and included downloadable relaxation audios and integrated workbook exercises.

2. **Sadness Program** (2 RCTs and 1 Open Trial; Perini, Titov, and Andrews, 2008).

The six lessons of the Sadness Program were presented in the form of an illustrated story of a woman with depression who with CBT learned new ways of managing her symptoms.

3. **Overcoming Depression on the Internet** (ODIN; Clarke et al., 2002).

Employed in 3 RCTs and consisted of modules on cognitive restructuring skills. The latest RCT saw the program overhauled and used with a young adult population (18–24 years), additionally it included behavioural activation and a range of interactive and automated feedback (Clarke et al., 2009).

4. **The Colour your Life program** (3 RCTs.)

Initially developed for use with over 50-years population (Spek, Nyklicek, et al., 2007) and later adapted for use with an adult population (18–65; de Graaf et al., 2009; Warmerdam, van Straten, Twisk, Riper, and Cuijpers, 2008). Consists of sessions on psychoeducation, cognitive restructuring, behaviour change, and relapse prevention. This program included text modules, exercises, videos and illustrations.

5. **Deprexis** (Meyer et al., 2009.)

A 10 module program that tailored content to the users' responses to given options. It was organized about simulated dialogues and included drawings, photographs, and multimedia animations. The modules included content other than CBT, such as

childhood experiences and early schema, dream work and positive psychology.

Other interventions too deviated from the standard CBT content, for example, problem-solving therapy (PST; van Straten, Cuijpers and Smits, 2008), a structured writing intervention (SWI; Kraaij et al., 2010), a combination of face-to-face and cognitive therapy (Wright et al., 2005), or mindfulness activities with standard CBT elements delivered in group format online (Thompson et al., 2010).

Two open trials have researched other CD-ROM based interventions:

1. **Blues Begone** (Purves, Bennett, and Wellman, 2009)

This program compiled a personalised roadmap to recovery for each user. It included information presented in text, audio, through character dialogues, and activities. It also included religious specific text for users who requested it.

2. **Overcoming Depression** (Whitfield, Hinshelwood, Pashely, Campsie, and Williams, 2006)

The Overcoming Depression program offered CBT concepts in six sessions, using text, cartoon illustrations, animations, interactivity, audio and video.

Lastly, the authors report a number of RCTs have employed what they term idiosyncratic CBT-based programs, such as:

- Ruwaard et al.'s (2009) CBT treatment included inducing awareness, structuring activities, cognitive restructuring, positive self-verbalisation, social skills and relapse prevention.
- Andersson et al. (2005) included modules on behavioural activation, cognitive restructuring, sleep and physical health and relapse prevention,
- Other interventions included similar CBT content, but were aimed at a specific population, for example, those with partially remitted depression (Holländare et al., 2011).
- Another described an intervention for comorbid depression with diabetes (van Bastelaar, Pouwer, Cuijpers, Riper, and Snoek, 2011). It included eight lessons of CBT with text, audio and videos of depressed diabetes patients modelling how they learned to manage their depression.

SURVEY NOTES

This section provides details of the three surveys that:

1. Service Users – 620 responses (target was 100)

People who have registered for The Journal and logged on in the last 12 months.

2. Potential Referrers – 42 responses (target was 25-30)

People who work in the Primary Care who do, or could, refer people to The Journal.

3. National Telehealth Service Staff – 6 responses (no target)

People who work in the NDI support team at Homecare Medical.

The data is presented according to type:

- Numerical data is presented with descriptive statistics in graph and data tables
- Qualitative (free text) data is presented thematically

All surveys combined compulsory and optional questions – data tables for each area show the total number of people who answered the optional questions.

FOCUSSING ON THE SERVICE USER

The Service User survey was offered to all registered Journal users who logged in over the last 12 months. It was known that this would include people who had registered and logged in for support for themselves and support for someone else.

It was also known that a number of registrations and logins related to people working in the area, particularly people involved in the transition to the National Telehealth Service in 2105 and Homecare Medical staff encouraged to have a 'user experience' as part of training. This was estimated at around 30 people.

The Service User survey had an initial filter question to allow people to identify which of these groups reflected their reason for registering and logging into The Journal:

Please select the reason you signed up to The Journal. I signed up to The Journal:

- | | |
|---|---------------|
| • <i>For myself</i> | 595 responses |
| • <i>To support someone else in my life</i> | 11 responses |
| • <i>To learn about The Journal for my work</i> | 14 responses |

This report focuses on people who use The Journal 'for myself'.

Whilst 11 people responded as a 'supporter', 7 skipped most of the questions leaving a restrictively small data set. It may be useful to consider how to engage 'supporters' in subsequent research and evaluation.

Likewise, whilst 14 people responded as a 'worker', 5 skipped most of the questions again providing limited data. It is also difficult to determine from which professions people responded from (e.g., health or technology). The views of health professionals are more robustly captured in the Potential Referrers and NTS Staff surveys.

SERVICE USERS INPUT

This section provides details of the views and opinions of service users of The Journal.

The intention of this part of the review was to explore people's experiences of using the website depression.org.nz and The Journal and how this compares to other support they may have used.

The survey data has been arranged into statistical and thematic groupings.

The full de-identified data set is available for further statistical and thematic study.

NOTES

TYPES OF SERVICE USER

The start of the survey asked people to identify why they signed up to The Journal:

1. For themselves
2. To support someone else
3. For work reasons

The vast majority (97.5% | n=595) signed up for themselves and this is the focus of reporting in this section.

COMPLETION RATE

The survey completion rate is estimated at 9.1%:

- 6,850 people were successfully invited to participate.
 - 6,999 people logged into The Journal in the 12 months preceding 16 May 2016 and were emailed an invitation and reminder invitation.
 - 149 emails bounced back as undelivered.
- 620 people took the survey.
 - 595 identified as signing up for themselves.
 - 11 identified as signing up to support someone else.
 - 14 identified as signing up for work reasons.

HIGHLIGHTS

Note: These highlights are of participants in this review, not all Journal users.

From the survey participants who gave demographic information The Journal user profile is of a New Zealand European (76%) woman (72%) living in a city (over 68%) and aged between 31-60 years old (56%).

Most people (69%) visited depression.org.nz fewer than 10 times – 10% visited only when they signed up for The Journal. Over half were directed there by the TV adverts (58%) or through Google (30%) with a fifth (22%) hearing about it from a health professional.

The majority (84%) found what they were looking for on the website and would recommend it to a friend or family member (84%; 10% 'do not do that kind of thing').

The TV adverts were also where people heard about The Journal (44%), with a third (36%) finding it on the depression.org.nz website, a fifth (21%) through Google and a fifth (21%) through a health professional.

The majority (83%) found the PHQ-9 useful on sign up (52% do not recall doing it) and would recommend The Journal to a friend or family member (82% - 11% 'don't do that kind of thing').

The majority (70%) either finished The Journal or planned to (43%), or did not finish because they got what they needed (27%).

Over three quarters (78%) did not contact the Support Team, half of whom (52%) felt they did not need support. Of those who did contact the Support Team (22%) about half used phone helplines (53%) with email (40%), SMS Text (30%) and web chat (18%) popular. (Noting web chat has been off line since November 2015).

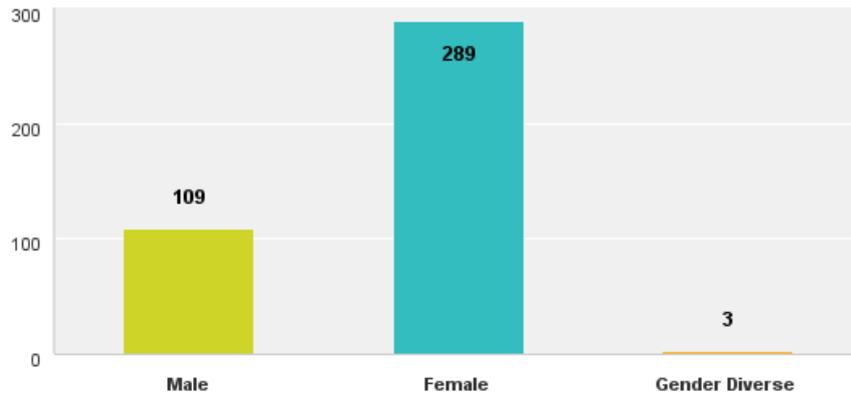
Three quarters (79%) were satisfied or very satisfied with the Support Team and have or would recommend them to a friend or family member (79% - 9% 'do not do that kind of thing').

Most people had seen another health professional like a GP or Nurse at the GPs (60%), a Counselor or Therapist (59%), a Psychiatrist or Psychologist (28%) or a Peer or Community Support Worker (14%). Over half (53%) have used medication like an anti-depressant and nearly a quarter (24%) used spiritual or religious support. Some had encountered specialist services like Community Mental Health Services (16%), Crisis Team (11%) or Inpatient Services (6%). Over a third (36%) had tried something else.

Nearly two thirds (63%) wanted a link between The Journal and their GP.

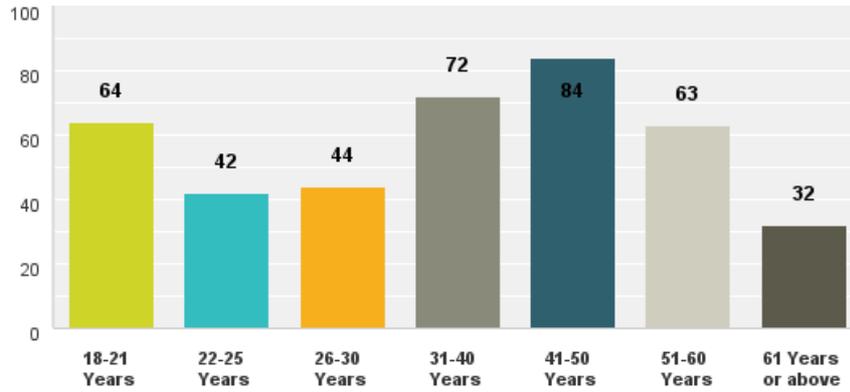
DEMOGRAPHICS

GENDER



Answer Choices	Responses	
Male	27.18%	109
Female	72.07%	289
Gender Diverse	0.75%	3
Total		401

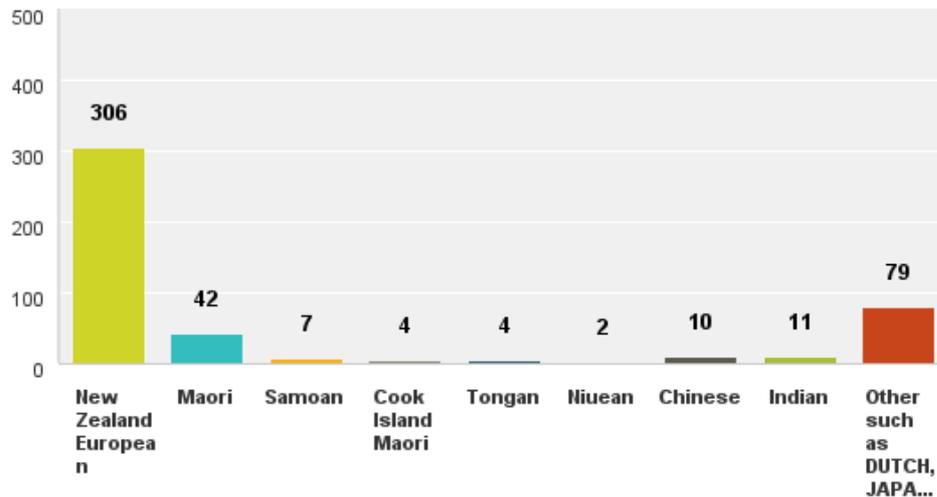
AGE



Answer Choices	Responses	
18-21 Years	15.96%	64
22-25 Years	10.47%	42
26-30 Years	10.97%	44
31-40 Years	17.96%	72
41-50 Years	20.95%	84
51-60 Years	15.71%	63
61 Years or above	7.98%	32
Total		401

ETHNICITY

Note: people can select more than one ethnicity.



Answer Choices	Responses
New Zealand European	76.31% 306
Maori	10.47% 42
Samoan	1.75% 7
Cook Island Maori	1.00% 4
Tongan	1.00% 4
Niuean	0.50% 2
Chinese	2.49% 10
Indian	2.74% 11
Other such as DUTCH, JAPANESE, TOKELAUAN, please specify here:	19.70% 79
Total Respondents: 401	

Of the 79 who gave their own answer, 2 preferred not to say, the rest identified as:

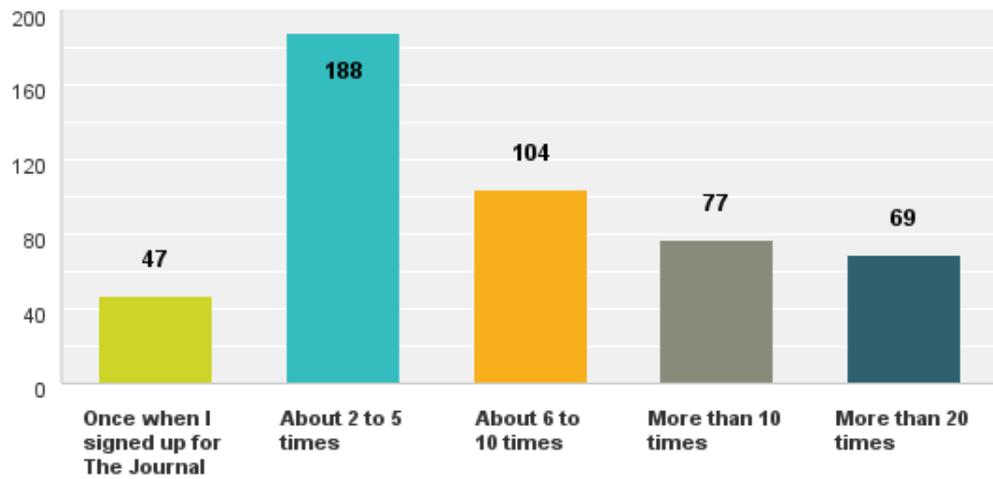
British English Scottish Irish UK	21	French	1
Australian	7	Indonesian	1
Canadian	6	Iranian	1
South African	6	Italian	1
American Native American	5	Latin American	1
Dutch	5	Malaysian	1
Caucasian	4	New Zealand Chinese	1
New Zealander	4	Norwegian	1
Japanese	3	Romanian	1
German	2	Russian	1
Arab	1	Taiwanese	1
Asian	1	Total	77
Egypt	1		

LOCATION

A city, but I'd rather not say which one	32	Carterton	3	Kaikohe	1
I'd rather not say	17	New Plymouth	3	Levin	1
A rural area, but I'd rather not say which one	15	Timaru	3	Mapua	1
A town, but I'd rather not say which one	9	Upper Hutt	3	Marton	1
Auckland - Central	29	Arrowtown	2	Methven	1
Christchurch	29	Bulls	2	Morrinsville	1
Wellington	27	Dannevirke	2	Oxford	1
Auckland - South	26	Gisborne	2	Rolleston	1
Auckland - West	21	Masterton	2	Snells Beach	1
Dunedin	21	Queenstown	2	Stratford	1
Auckland - North Shore	20	Te Aroha	2	Tairua	1
Hamilton	16	Te Awamutu	2	Takaka	1
Lower Hutt	11	Te Kuiti	2	Taumarunui	1
Invercargill	8	Wanganui	2	Te Anau	1
Nelson	8	Whakatane	2	Te Puke	1
Palmerston North	7	Ashburton	1	Thames	1
Kapiti	6	Balclutha	1	Tokoroa	1
Tauranga	6	Coromandel	1	Twizel	1
Blenheim	5	Darfield	1	Waipawa	1
Porirua	5	Feilding	1	Wanaka	1
Whangarei	5	Geraldine	1	Warkworth	1
Hastings	4	Gore	1	Wellsford	1
Napier	4	Greymouth	1	Woodend	1
Rotorua	4	Hawera	1	Total	401

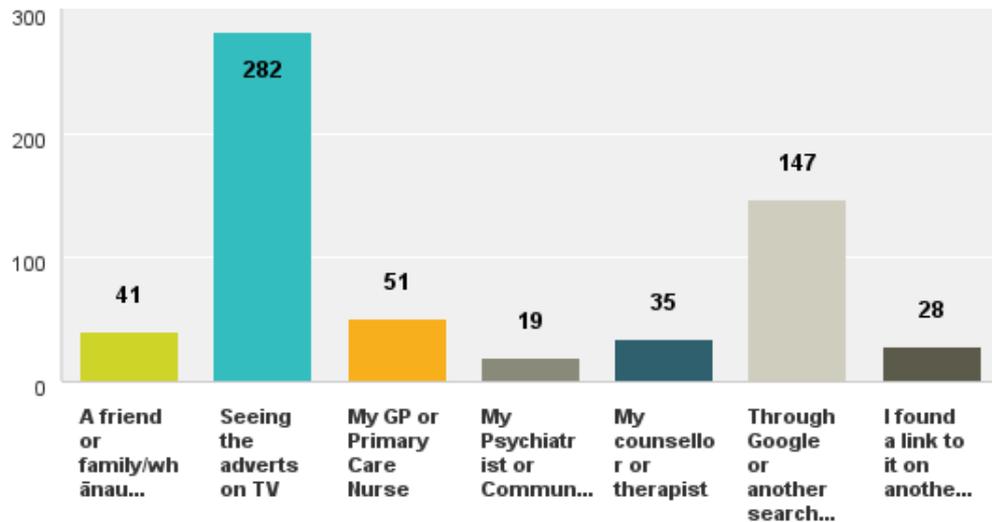
THE WEBSITE

HOW MANY TIMES DO YOU THINK YOU'VE VISITED THIS WEBSITE?



Answer Choices	Responses
Once when I signed up for The Journal	9.69% 47
About 2 to 5 times	38.76% 188
About 6 to 10 times	21.44% 104
More than 10 times	15.88% 77
More than 20 times	14.23% 69
Total	485

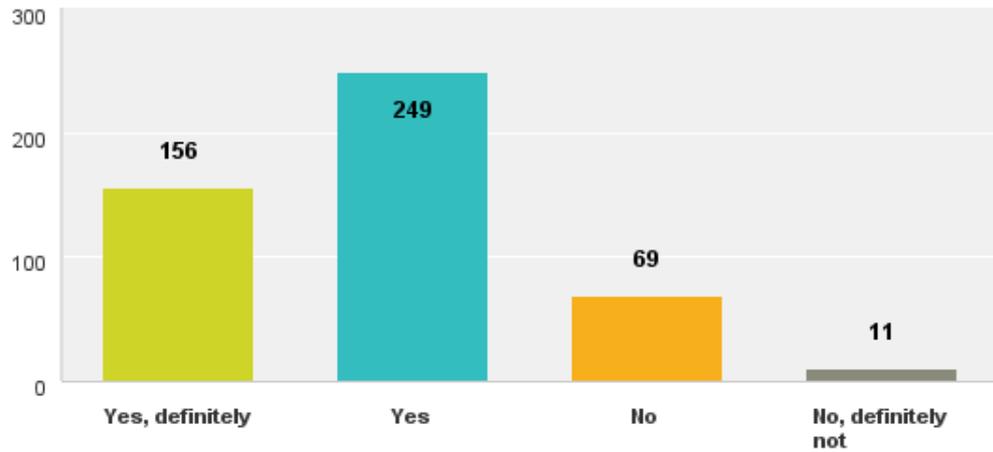
WHERE DID YOU HEAR ABOUT THIS WEBSITE?



Answer Choices	Responses
A friend or family/whānau member	8.45% 41
Seeing the adverts on TV	58.14% 282
My GP or Primary Care Nurse	10.52% 51
My Psychiatrist or Community Mental Health Nurse	3.92% 19
My counsellor or therapist	7.22% 35
Through Google or another search engine	30.31% 147
I found a link to it on another website or somewhere else - please let us know where here:	5.77% 28
Total Respondents: 485	

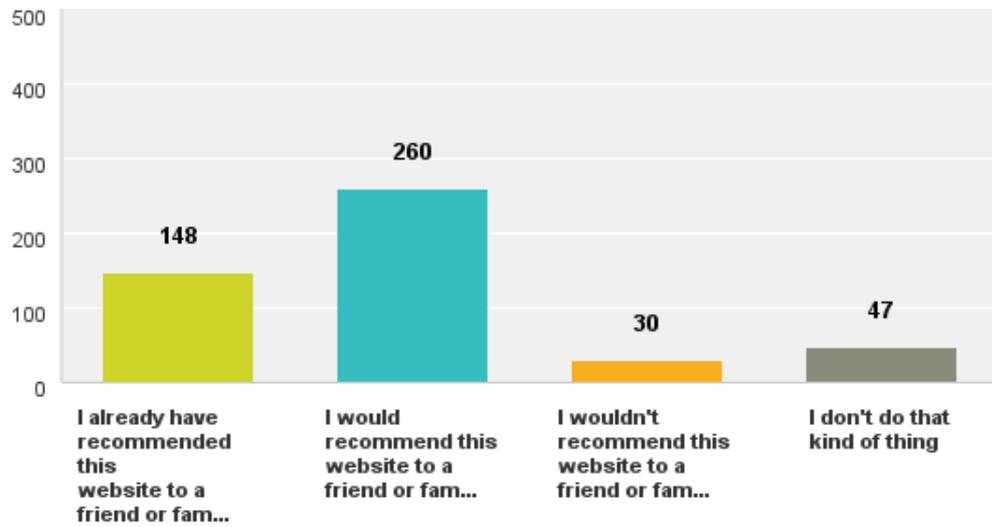
15 people referred to a web advert, for example on Facebook, NZ Herald and TradeMe.

DID YOU FIND WHAT YOU WERE LOOKING FOR ON THIS WEBSITE?



Answer Choices	Responses
Yes, definitely	32.16% 156
Yes	51.34% 249
No	14.23% 69
No, definitely not	2.27% 11
Total	485

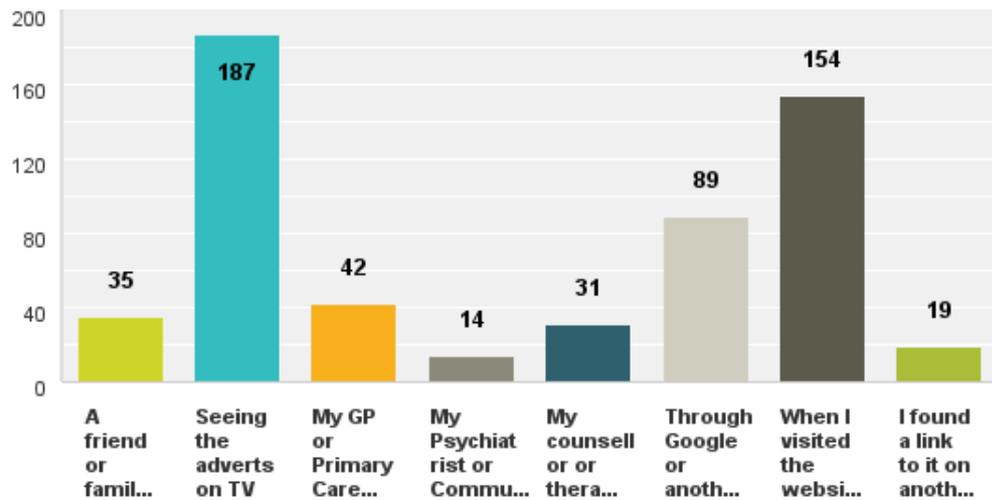
WOULD YOU RECOMMEND THIS WEBSITE TO A FRIEND OR FAMILY MEMBER?



Answer Choices	Responses
I already have recommended this website to a friend or family member	30.52% 148
I would recommend this website to a friend or family member	53.61% 260
I wouldn't recommend this website to a friend or family member	6.19% 30
I don't do that kind of thing	9.69% 47
Total	485

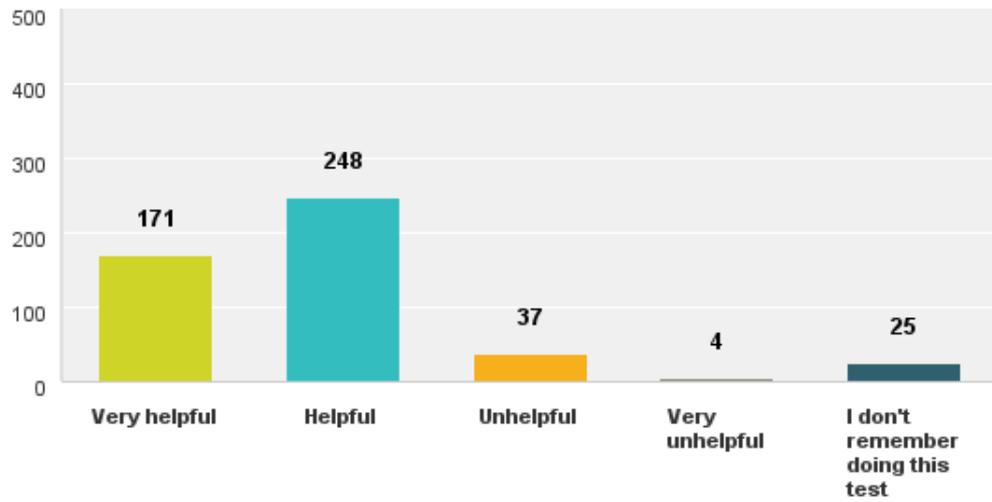
THE JOURNAL WHERE DID YOU HEAR ABOUT THE JOURNAL?

NOTE: People could choose more than one place.



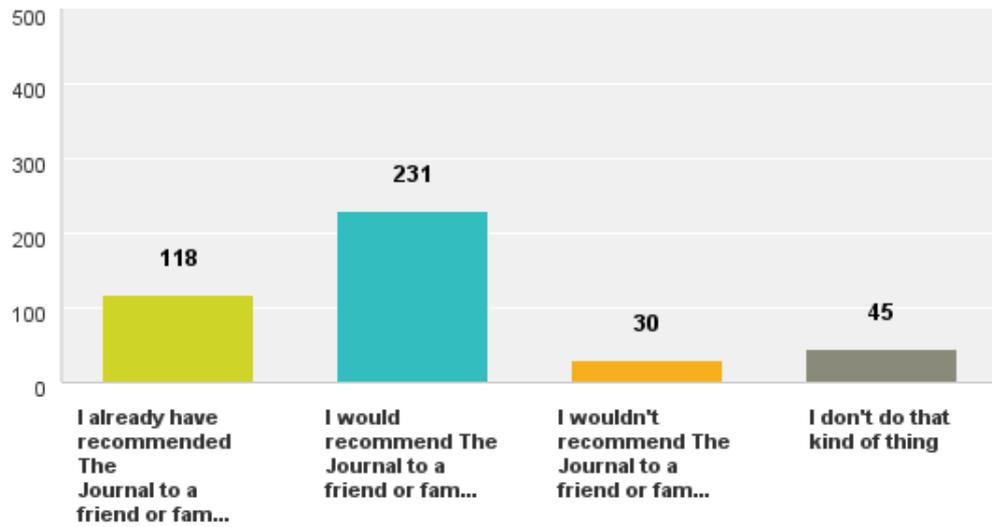
Answer Choices	Responses
A friend or family/whānau member	8.25% 35
Seeing the adverts on TV	44.10% 187
My GP or Primary Care Nurse	9.91% 42
My Psychiatrist or Community Mental Health Nurse	3.30% 14
My counsellor or therapist	7.31% 31
Through Google or another search engine	20.99% 89
When I visited the website www.depression.org.nz	36.32% 154
I found a link to it on another website or somewhere else - please let us know where here:	4.48% 19
Total Respondents: 424	

WAS THE PHQ-9 ON SIGN UP HELPFUL FOR YOU?



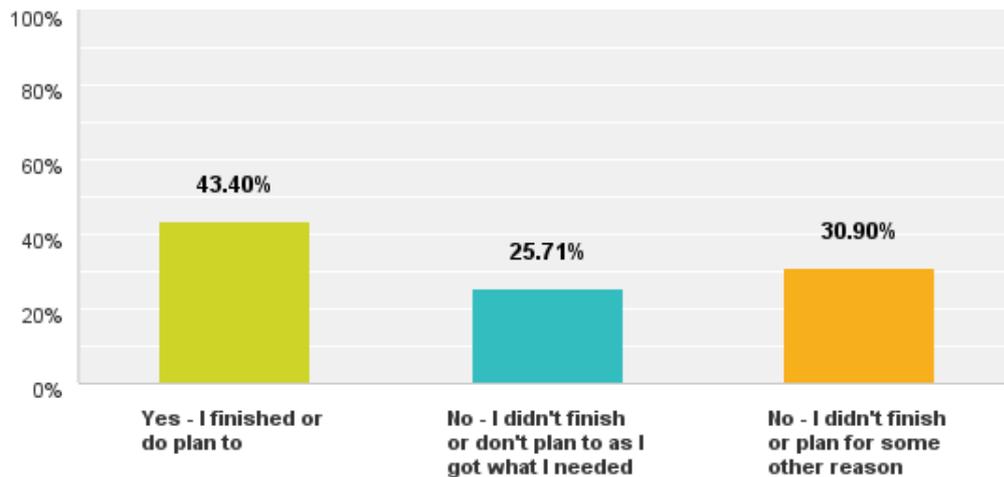
Answer Choices	Responses	
Very helpful	35.26%	171
Helpful	51.13%	248
Unhelpful	7.63%	37
Very unhelpful	0.82%	4
I don't remember doing this test	5.15%	25
Total		485

WOULD YOU RECOMMEND THE JOURNAL TO A FRIEND OR FAMILY MEMBER?



Answer Choices	Responses
I already have recommended The Journal to a friend or family member	27.83% 118
I would recommend The Journal to a friend or family member	54.48% 231
I wouldn't recommend The Journal to a friend or family member	7.08% 30
I don't do that kind of thing	10.61% 45
Total	424

DID YOU FINISH THE JOURNAL OR PLAN TO?



Answer Choices	Responses	
Yes - I finished or do plan to	43.40%	184
No - I didn't finish or don't plan to as I got what I needed	25.71%	109
No - I didn't finish or plan for some other reason	30.90%	131
Total		424

Of the 131 people who did not finish or plan to finish The Journal for some other reason, the reasons given included forgetting, frustration or not liking it, loss of motivation, energy and connection, or support was being found elsewhere.

Examples of comments from those who did not finish or plan to include:

I got frustrated as am unemployed and some of it didn't really allow me to do some of the tasks.

It's too involved & pressing. I found the making commitments to walk or cook etc quite stressful, just another thing nagging me or putting pressure on me.

It wasn't big enough, loud enough, there was no motivation to keep coming back, except my own and when depression strikes, I have no motivation. :(

Didn't like it. I didn't find it helpful I actually found it quite frustrating

I felt better and stopped using it. As using it reminded me of bad feelings and the thought of using it also turned my mood bad.

I didn't like the journal I found it too wishy washy and too pictorial as if it treated me like a five years old person rather than an adult - perhaps you are targeting too many audience age groups - may be look at doing one for different major issues or age groups and then tailor the questions to that

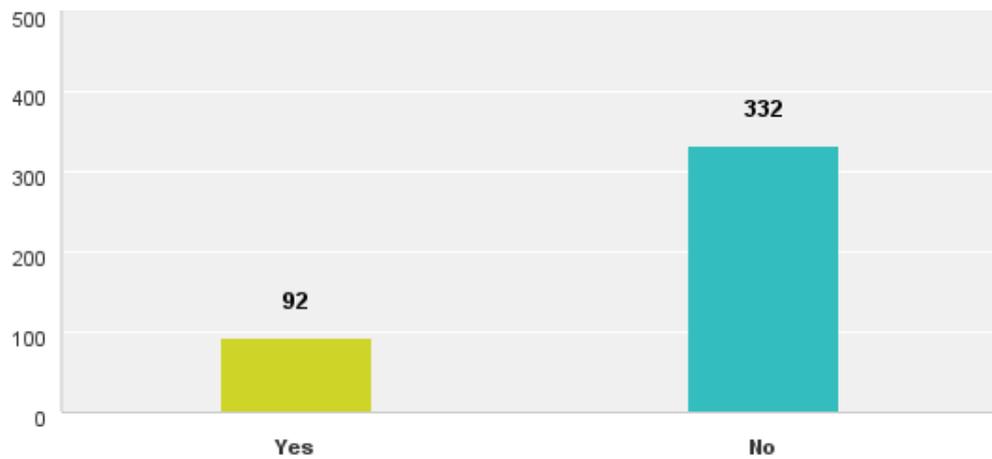
I got support through my regional mental health team and spouse.

I need to talk face to face, not a computer that has no feelings, no nervous system, and becomes obsolete in a year or less, and the person on the other end what degrees does this person hold to help me because in the meantime I have been healed from depression through prayer. If this hadn't happened I would definitely have proceeded with it just don't feel ready to finish

I didn't like the style of the journal. I prefer just going to my councilor.

THE SUPPORT TEAM

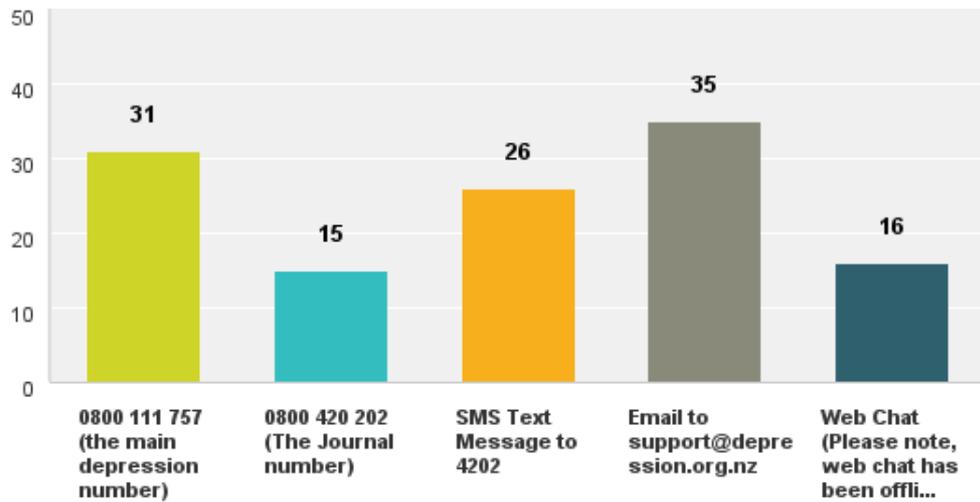
HAVE YOU EVER CONTACTED THE SUPPORT TEAM VIA PHONE, EMAIL, WEB CHAT OR TEXT?



Answer Choices	Responses
Yes	21.70% 92
No	78.30% 332
Total	424

HOW HAVE YOU GOT IN TOUCH WITH THE SUPPORT TEAM?

Note: People could choose more than one method.



Answer Choices	Responses
0800 111 757 (the main depression number)	35.63% 31
0800 420 202 (The Journal number)	17.24% 15
SMS Text Message to 4202	29.89% 26
Email to support@depression.org.nz	40.23% 35
Web Chat (Please note, web chat has been offline since Nov 2015 so you will not have seen this if you signed up to The Journal after this date)	18.39% 16
Total Respondents: 87	

WHY DID YOU CONTACT THE SUPPORT TEAM?

77 people commented on this, with most (84%) mentioning personal support, including wanting to talk to someone and topics included feeling down and suicidal, insomnia, grief and struggling at work:

I used the depression helpline for personal support when I was feeling my very lowest and could take no more, later I learnt to use the resource when I felt like I was going downhill in an attempt to snub it early on firm getting so bad, this seemed to help.

Personal support. It was when I was doing the positivity section, I couldn't get myself going to do the activities, I just wanted to stay in bed.

I was having a meltdown, and didn't know how to pull myself out of it; I called my husband first, to ask him to come home from work, and then the helpline - I was by no means suicidal, but I did feel the urge to self-harm, and wanted help to avoid doing so, and support to get out of the hole I felt myself to be in.

I answered the txt they sent, which was really amazing; because I didn't feel alone, and I was so weighed down I hadn't thought to look at my journal. I log in and that was and is very encouraging.

Just felt I was at the bottom of a big dark hole with no way out, even my wife and daughter didn't know what to do to help.

Someone to talk to about my problems at the time. Not my parents or friends.

For personal support. I have a lot of things going on and everyone around me doesn't understand. They think I'm overreacting and/or I'm just crazy.

It was good just to get advice about what to do, I was really trapped and my life was falling apart.

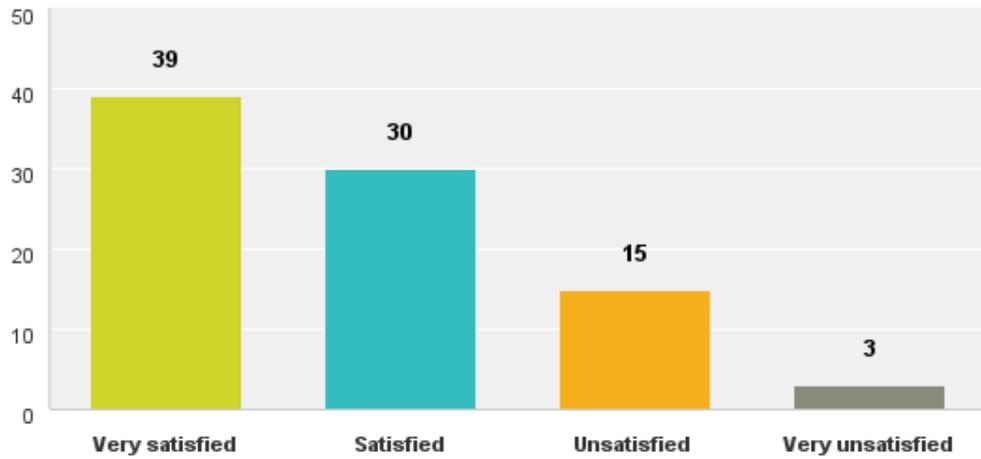
I needed to talk to someone and wasn't always able to contact my counselor.

A small number (13%) also mentioned technology support, such as resetting passwords, mostly with unsatisfactory outcomes:

I wanted to delete some of my earlier entries and managed to do some but ended up with fragmented journal. This is something I don't really like as it's a mess.

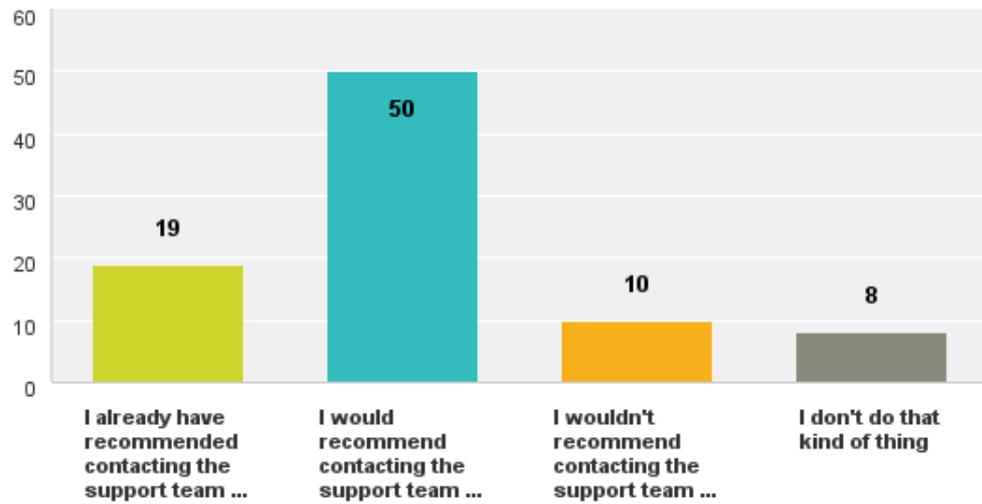
Because I wanted to reactivate the journal as I was feeling a little more ready to engage with life and moving forward but was told I couldn't unless I got myself a new email address and new password. How stupid is that for a tool that is supposed to be helping depressed people!

HOW SATISFIED WERE YOU WITH THE SUPPORT TEAM?



Answer Choices	Responses	
Very satisfied	44.83%	39
Satisfied	34.48%	30
Unsatisfied	17.24%	15
Very unsatisfied	3.45%	3
Total		87

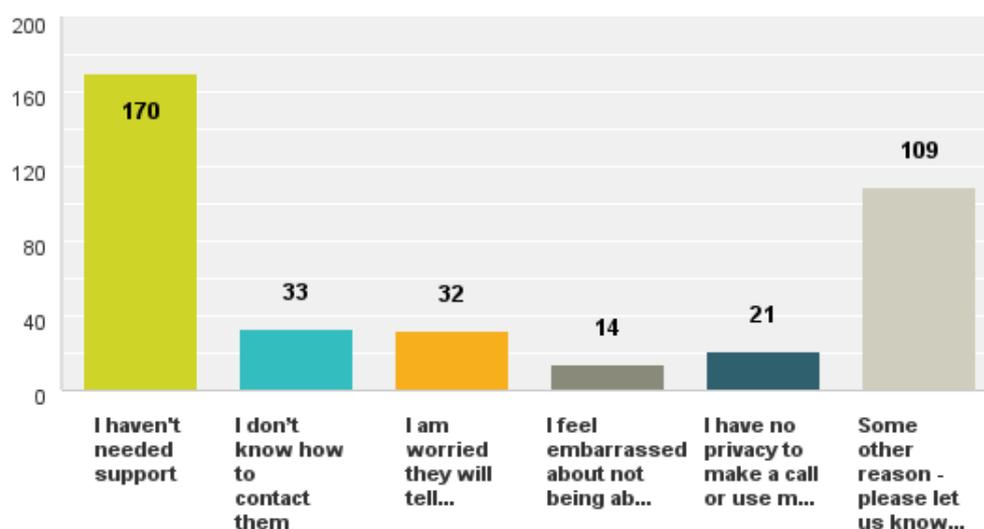
WOULD YOU RECOMMEND CONTACTING THE SUPPORT TEAM TO A FRIEND OR FAMILY MEMBER?



Answer Choices	Responses
I already have recommended contacting the support team to a friend or family member	21.84% 19
I would recommend contacting the support team I to a friend or family member	57.47% 50
I wouldn't recommend contacting the support team to a friend or family member	11.49% 10
I don't do that kind of thing	9.20% 8
Total	87

WHICH OF THE FOLLOWING EXPLAINS WHY YOU HAVEN'T CONTACTED THE SUPPORT TEAM?

Note: People could choose more than one reason.



Answer Choices	Responses
I haven't needed support	51.67% 170
I don't know how to contact them	10.03% 33
I am worried they will tell someone about what is going on for me, like my doctor or family	9.73% 32
I feel embarrassed about not being able to understand the computer	4.26% 14
I have no privacy to make a call or use my phone or computer	6.38% 21
Some other reason - please let us know here:	33.13% 109
Total Respondents: 329	

Of the 109 people who said there was some other reason why they did not contact the Support Team, the main reasons included that they were already receiving support (e.g., from a counselor), they did not want to or feel able to communicate with someone, they did not need to, they lived overseas or they did not know how to. Comments included:

Not too sure what they are there for? to talk to? ask questions or listen not clear about that.

Because of the state of mind I was in, feeling lost and frustrated, not getting anywhere, I didn't feel a connection and trust in the whole website etc. Today I can see I should have made the call! Instead I opted to go to a GP which wasn't easy either because only the 3rd GP was open to listen and hear what I was going through and rather dealt with the situation directly not covering it up with Antidepressants.

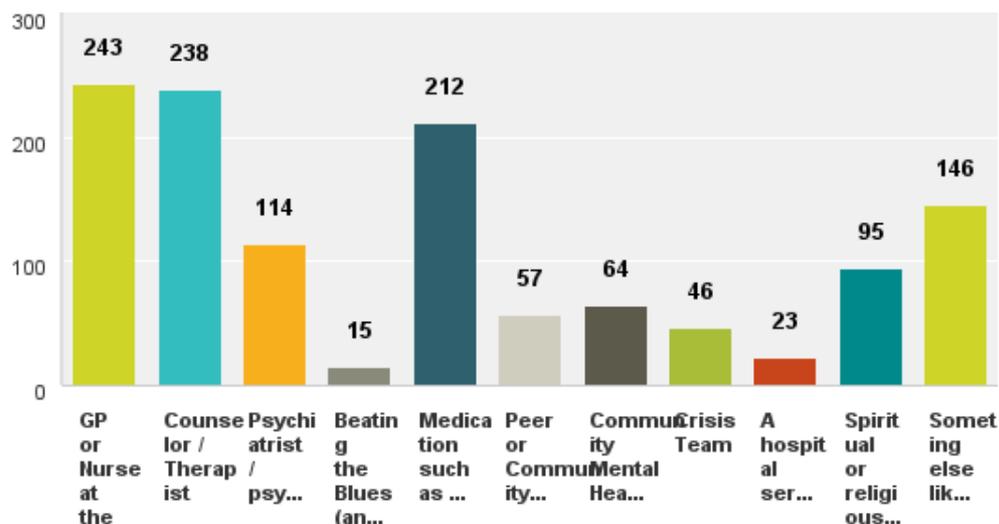
I find it difficult to put feelings into words, especially with a complete stranger.

I have been dealing with this by myself or through my Dr. I find it difficult to talk about my problems with 'strangers'

OTHER SUPPORT

WHAT OTHER THINGS HAVE YOU TRIED TO HELP WITH YOUR DEPRESSION/ANXIETY OR TO IMPROVE YOUR WELLBEING?

Note: People could choose more than one thing.



Answer Choices	Responses
GP or Nurse at the GPs	60.45% 243
Counselor / Therapist	59.20% 238
Psychiatrist / psychologist	28.36% 114
Beating the Blues (an online program only your GP can prescribe)	3.73% 15
Medication such as an anti-depressant	52.74% 212
Peer or Community Support Worker	14.18% 57
Community Mental Health Service	15.92% 64
Crisis Team	11.44% 46
A hospital service where you stayed on a ward	5.72% 23
Spiritual or religious support	23.63% 95
Something else like a different website, helpline or an alternative health service like acupuncture or homeopathy - please let us know here:	36.32% 146
Total Respondents: 402	

Of the 146 people who mentioned ‘something else’ there were a range of supports:

Books	Night school classes
Websites	Music
Meditation	Sleep
Yoga	Diet
Mindfulness	Exercise
Calming Techniques	Dance
Spiritual	Coloring
Positive Thinking	Talking with friends and family and pets
Walking	Nutters Club on Radio

There was also reference to alternative medicine, including Acupuncture, Reiki, Hypnotherapy, Herbalists, Massage, Osteopathy, Chiropractics and Bowen Therapy, St John's Wort. Nutrition or consulting a nutritionist was also important to some respondents, mentioning things such as taking supplements like Vitamin B12 or going gluten free.

Support groups were named (women's and men's) and on Facebook.

A small number of people mentioned mental health services, particularly maternal mental health.

Finding meaningful employment was also important to a small number of people.

Examples of the comments include:

Maternal mental health - Put me with the CATT Team and then in hospital. - That worked, as I then didn't have a decision after that.

I have used NIS, homeopathy, hypnosis, meditation, exercise, diet, basically anything that is suggested

Good sleep, physical health, regular exercise, getting off the pills and onto supplements (zinc, magnesium, B12), cutting back seriously on sugar, taking responsibility for my mental health and learning new ways of approaching people and situations (i.e. being patient, good humored, kind)

Nutritionist, Herbalist, Hypnotist, Psychic, White witch, Meditation, Personal Trainer.

So the biggest help to me has been taking extra vitamin supplements and being more mindful of my triggers. And it is linked to my menstrual cycle so focusing on remedies that help with PMT

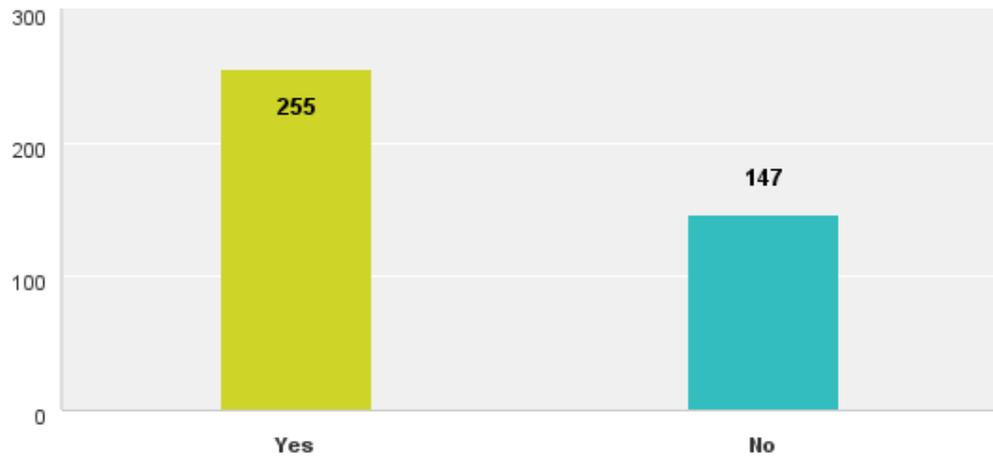
I am a curious person and long to learn more about spirituality and myself in general- mentally and physically. Just being more in tune with my own body. I use to care too much about everything but that.

Women's Centre- Groups and courses-WRAP course

I beat it, (or keep it at bay) by doing meditation and yoga, and have very good friends.

WOULD YOU LIKE TO SEE THE JOURNAL LINKED TO OTHER HEALTH SERVICES YOU MIGHT HAVE USED.

Example: so a GP can see how you're progressing and if you need additional support?



Answer Choices	Responses
Yes	63.43% 255
No	36.57% 147
Total	402

POTENTIAL REFERRERS INPUT

This section provides details of the views and opinions of the potential referrers to The Journal. For a list of those consulted, please see Appendix A – Participants.

The intention of this part of the review was to explore what would help and hinder the use of and referral to The Journal from Primary Care Professionals. The data has been arranged in key themes across all participant's input.

COMPLETION RATE

The total number of responses was 42.

A completion rate cannot be calculated as the invitation went out to people working in primary care through direct emails from the review team, forwarded emails from recipients and professional newsletters.

HIGHLIGHTS

From the survey participants who gave demographic information the Primary Care referrer is a New Zealand European (91%) woman (87%) living in a city (70%) and aged between 31-60 years old (87%).

Most people (87%) were aware of depression.org.nz though only a quarter (27%) were aware of the helpline and less (10%) knew their extra communication options with The Journal. Half (50%) knew about the PHQ9 test, less (43%) knew about The Journal and less again (30%) about The Lowdown.

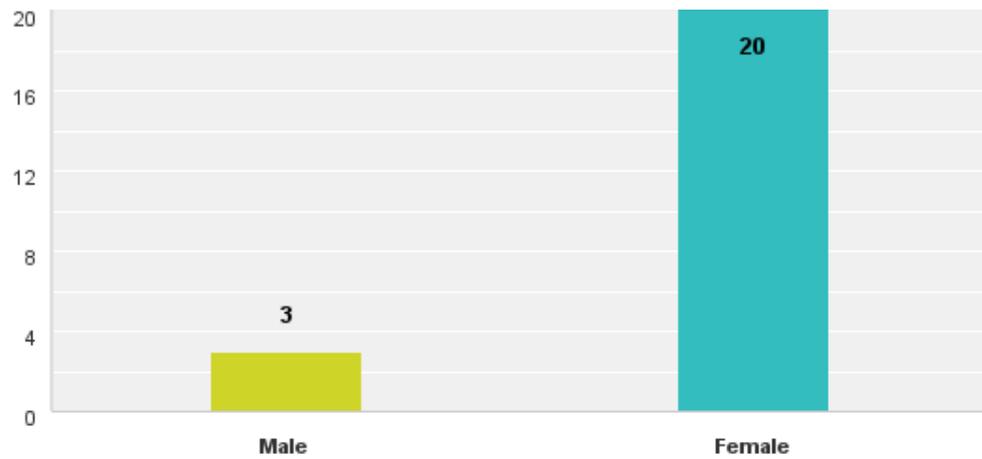
The majority (87%) has or would recommend to a family member though less (60%) said they often or occasionally recommend the services to patients.

All (100%) thought 24/7 access to counseling support staff was valuable and 92% value and trust these services to be helpful for patients. The majority (88%) thought online self-help was a key part of the future of mental health care and felt confident these services were important, high quality and clinically effective options for patients (84%). Three quarters (76%) knew how these services fit with other options they can recommend and the majority (92%) thought the technology was up to date.

Just over half (52%) thought there should not be a referral process for these services.

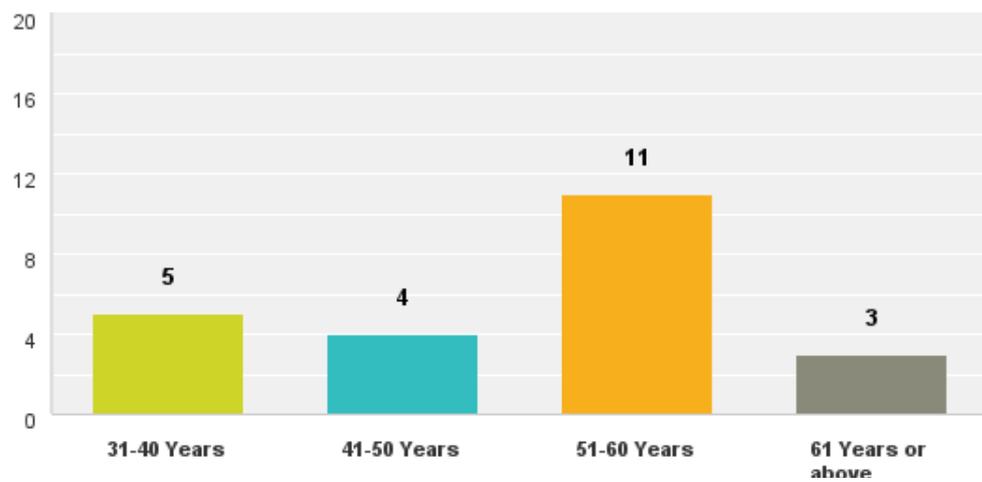
DEMOGRAPHICS

GENDER



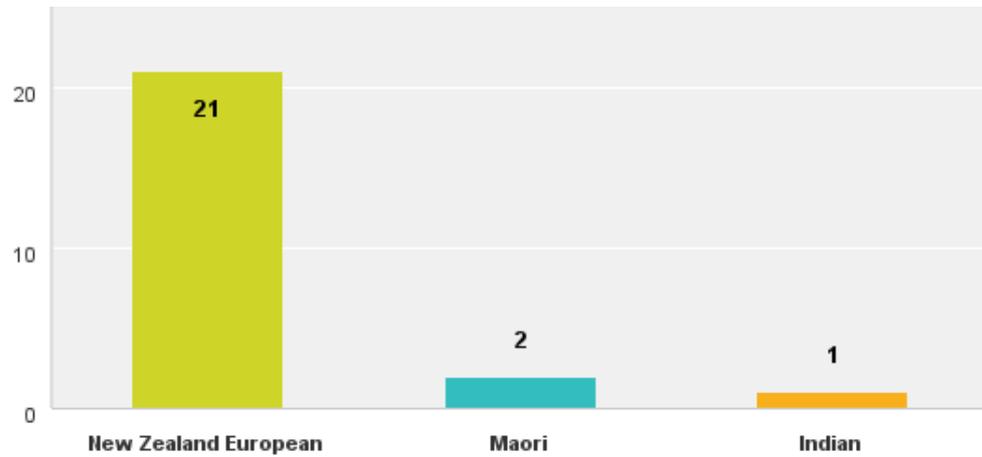
Answer Choices	Responses	Count
Male	13.04%	3
Female	86.96%	20
Total		23

AGE



Answer Choices	Responses	Count
31-40 Years	21.74%	5
41-50 Years	17.39%	4
51-60 Years	47.83%	11
61 Years or above	13.04%	3
Total		23

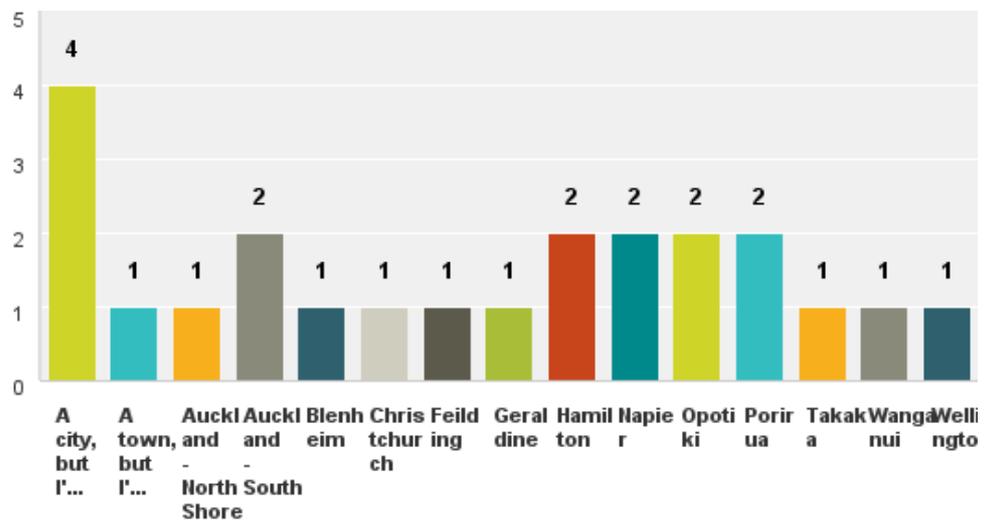
ETHNICITY



Answer Choices	Responses
New Zealand European	91.30% 21
Maori	8.70% 2
Indian	4.35% 1
Total Respondents: 23	

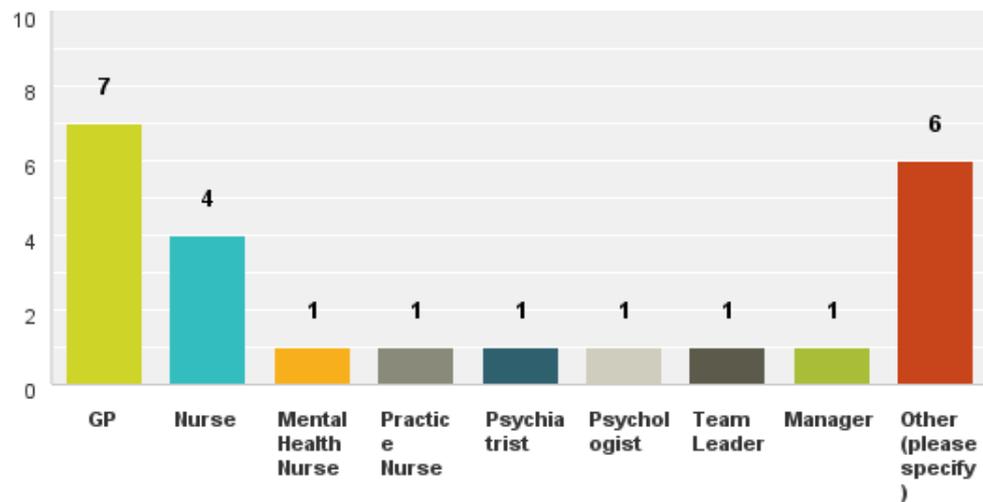
Three people also added their own ethnicity – 2 as English and 1 as Australian.

LOCATION



Answer Choices	Responses
A city, but I'd rather not say which one	17.39% 4
A town, but I'd rather not say which one	4.35% 1
Auckland - North Shore	4.35% 1
Auckland - South	8.70% 2
Blenheim	4.35% 1
Christchurch	4.35% 1
Feilding	4.35% 1
Geraldine	4.35% 1
Hamilton	8.70% 2
Napier	8.70% 2
Opotiki	8.70% 2
Porirua	8.70% 2
Takaka	4.35% 1
Wanganui	4.35% 1
Wellington	4.35% 1
Total	23

CURRENT ROLE



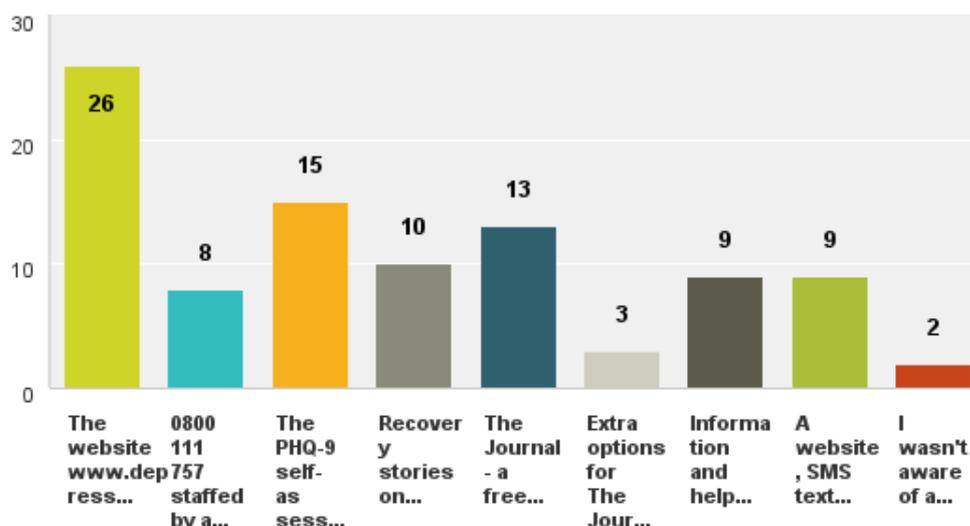
Answer Choices	Responses	
GP	30.43%	7
Nurse	17.39%	4
Mental Health Nurse	4.35%	1
Practice Nurse	4.35%	1
Psychiatrist	4.35%	1
Psychologist	4.35%	1
Team Leader	4.35%	1
Manager	4.35%	1
Other (please specify)	26.09%	6
Total		23

Six people specified their own role:

- 3 Nurse Practitioners
- 1 Family Nurse Specialist
- 1 Educator
- 1 Intern Clinical Psychologist

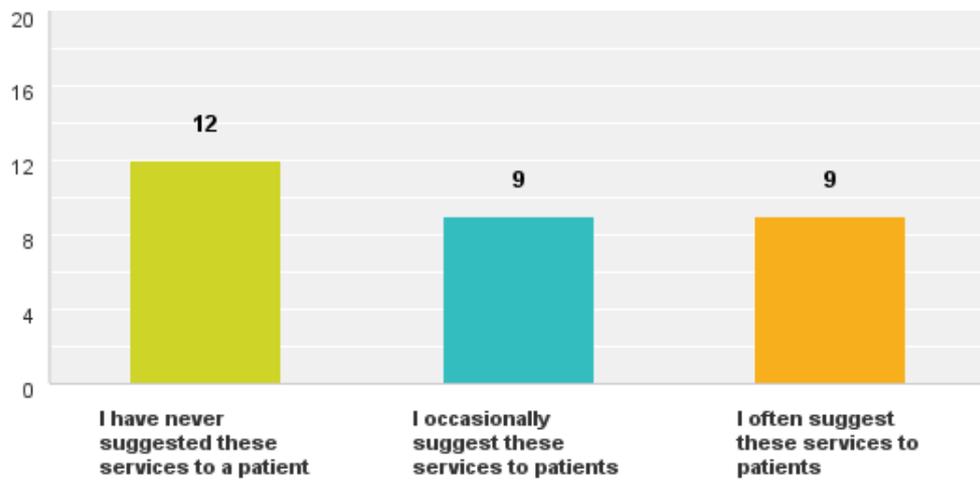
KNOWLEDGE OF AND REFERRAL TO NDI

WHICH NATIONAL DEPRESSION INITIATIVE SUPPORT OPTIONS DO YOU KNOW ABOUT?



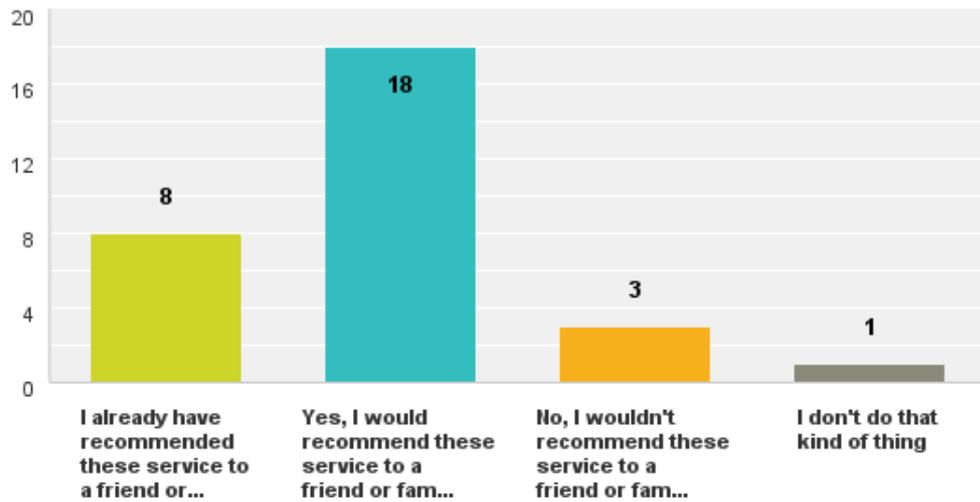
Answer Choices	Responses
The website www.depression.org.nz	86.67% 26
0800 111 757 staffed by a 24/7 counselling-led team	26.67% 8
The PHQ-9 self-assessment on www.depression.org.nz	50.00% 15
Recovery stories on www.depression.org.nz	33.33% 10
The Journal - a free 6 week, CBT-based self-tool	43.33% 13
Extra options for The Journal including SMS Text, Email and Web Chat Support	10.00% 3
Information and helpline support for those supporting others with depression	30.00% 9
A website, SMS text and email service for youth (www.thelowdown.co.nz) [not part of this review]	30.00% 9
I wasn't aware of any of these services	6.67% 2
Total Respondents: 30	

HAVE YOU EVER SUGGESTED THESE SERVICES TO A PATIENT?



Answer Choices	Responses	
I have never suggested these services to a patient	40.00%	12
I occasionally suggest these services to patients	30.00%	9
I often suggest these services to patients	30.00%	9
Total		30

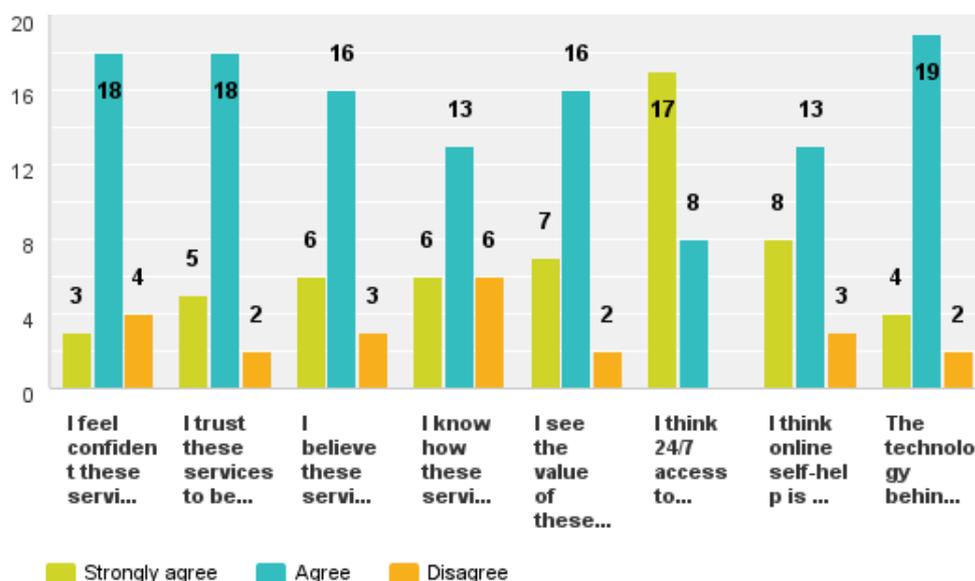
WOULD YOU RECOMMEND THESE SERVICES TO A FRIEND OR FAMILY MEMBER?



Answer Choices	Responses
I already have recommended these service to a friend or family member	26.67% 8
Yes, I would recommend these service to a friend or family member	60.00% 18
No, I wouldn't recommend these service to a friend or family member	10.00% 3
I don't do that kind of thing	3.33% 1
Total	30

OPINIONS AND LINK TO PRIMARY CARE

OPINIONS ON WEBSITE, THE JOURNAL AND E-MENTAL HEALTH



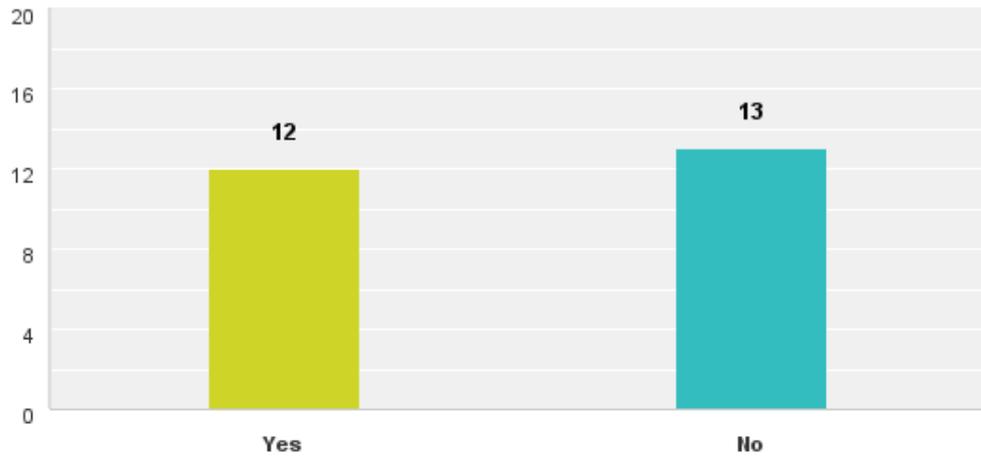
	Strongly agree	Agree	Disagree	Total	Weighted Average
I feel confident these services are high quality and clinically effective	12.00% 3	72.00% 18	16.00% 4	25	2.04
I trust these services to be helpful for my patients	20.00% 5	72.00% 18	8.00% 2	25	1.88
I believe these services are an important part of the options I can suggest	24.00% 6	64.00% 16	12.00% 3	25	1.88
I know how these services fit with the other options I can suggest	24.00% 6	52.00% 13	24.00% 6	25	2.00
I see the value of these services in supporting my patients	28.00% 7	64.00% 16	8.00% 2	25	1.80
I think 24/7 access to counselling support staff is valuable	68.00% 17	32.00% 8	0.00% 0	25	1.32
I think online self-help is a key part of the future of mental health care	33.33% 8	54.17% 13	12.50% 3	24	1.79
The technology behind these services are up-to-date	16.00% 4	76.00% 19	8.00% 2	25	1.92

Note: one person strongly disagreed with the statement:

I think online self-help is a key part of the future of mental health care.

DO YOU THINK THERE SHOULD BE A REFERRAL PROCESS FOR THESE SERVICES?

For example, similar to the Quit Smoking service where you can refer patients and receive progress reports.



Answer Choices	Responses	
Yes	48.00%	12
No	52.00%	13
Total		25

PRODUCERS AND PROVIDERS INPUT

This section provides details of the views and opinions of the original producers and current providers of The Journal. The participants were Allan Wyllie, Andrew Slater, Bruce Arroll, Carolyn Humphreys, David Codyre, Dylan Norton, Lyndy Matthews, Martin Orr, Mel Shaw, Sadie Litchfield, Simon Hatcher and Simon Seivert. For participant roles and organisations, please see Appendix A – Participants.

Note: The commissioners of NDI and members of the NDI Advisory Group views were not included in this review.

This involved interviews with key informants involved in the production and delivery of the website www.depression.org.nz and The Journal and online survey of support staff who work on the National Depression Initiative.

INTERVIEWS WITH PRODUCERS AND PROVIDERS

The first part of this section provides thematic analysis of the interviews. Because many of the original providers were still involved in the provision of the service at the time of the review the data from these two groups were treated as one data set.

A UNIQUE AND WELL PUT TOGETHER SYSTEM

All participants who took part in the review spoke highly and with great respect about the NDI programme—both website and The Journal. Some participants spoke about how well the programme was planned and executed whilst others commented on the uniqueness of it. The quotes below are drawn from four individuals who were involved in the development of the programme at various stages.

“I don’t think there was any other system that was more well thought of in terms of just the whole back up process and integration”.

“The NDI is one of the best examples of this kind of marketing in New Zealand, which is why it’s won one of the most prestigious global awards for marketing effectiveness”.

“The real strength of the program is the integrated NDI and something that hasn’t been done in any country”.

“Addressing stigma and discrimination, so having someone of John Kirwan’s caliber talking about depression and panic but also wrap that up around a self-help program, I love that”.

Some participants also discussed about the different issues the programme addresses along with depression, *“it talks about sleep, diet, exercise and some problem solving and those core things go a long in terms of staying well”.*

All in all, it is still a well-regarded programme with great strengths and potential for further developments.

A “VANILLA” PROGRAMME

Some participants in the review took a step further and discussed broadening the focus of the current NDI system. As this program was so well thought of and put together, it could be used as a “vanilla” program for providing self-help in a greater range of ways, or

for a greater range of New Zealanders. There were three aspects to this: which health conditions to target, what interventions to provide for users, and whether the focus could be moved from specifically targeting diagnoses at all. One participant suggested the system had broader applicability than just to depression:

“If you take out the word depression out of it, you could use the technology for about any health condition”

An individual who was an important part of the NDI development process further emphasized this:

“If the Gout people did the John Kirwan thing, it will actually solve a lot of Gout problems in New Zealand. It’s a very powerful medium; this type of social marketing is just great. I know it’s not popular with some governments but it’s very effective”.

The potential for extending the programme to include other therapeutic approaches was also discussed. For example, some participants said *“mindfulness is something that can be included as part of the service”* and *“maybe something about breathing and anxiety would be good”*. One participant emphasized the importance of ensuring programme content is appropriately modified to cater for each condition the programme targets.

Finally, one participant suggested that it was not necessary to define the focus of the system in terms of medical diagnoses such as depression and anxiety. There is potential benefit of many of the components of the programme for people who either did not fall within these diagnoses, or may meet the criteria but not personally relate to them:

“People don’t want it to be so narrow and just about depression because there is more to it than just depression... does it have to be depression? Can it not be something else, something more generic, bigger and broader?”

KEEPING THE TECHNOLOGY UPDATED

Despite the greatness of the program and how well it was planned and executed, all participants in the review mentioned the importance of keeping the technology updated as time progresses. Not only was this discussed in the context of look and feel of the technology but also the way it is aligned with primary care, promoted and advertised.

One participant in particular said, *“it needs a bit of revamp, needs to be living, constantly changing, promoted and aligned”*. Some participants even mentioned that although it started great, *“it hasn’t evolved to keep up with time”*.

To further build up on this, one participant said:

“We need to continually say what’s the evidence for the engagement model, how are we keeping up with the evidence so we keep up with the technology? The general themes haven’t changed a lot, but we may also need to make it more user friendly, mobile friendly such as types of alerts or warnings etc”.

This importance of keeping up with time was also emphasized by another participant who mentioned, *“originally it was cutting edge, but by the time I came on, the amount of people using it wasn’t that great. It did not move quickly enough with technology and new ways of thinking, it wasn’t as shiny and exciting and a bit underwhelming”*. When questioned

further as to why they thought there was a delay in updating the technology and keeping it updated, the participant spoke about the speed of “decision making”.

“It needs to be speedier, by the time decision is made, signed and sealed things have moved on. Decision making needs to be quicker, changes need to be quicker, it’s all very very slow and that’s where you lose momentum”.

One participant reflected that change in ownership of the NDI over time has also resulted in changes in the flow of information:

“The change of ownership is that the group that is at the coal face of development, the research company, the helpline company, and the program company are no longer directly talking to the same client so there is a chain of command that goes up and over so it makes it difficult to make sure everyone understands the issues in the same way and the urgency of the issues and the reporting if you don’t know where the information you are providing is going”.

THE LACK OF INTEGRATION WITH PRIMARY CARE

In addition to the ownership issues, the lack of primary care integration and input was repetitively discussed during the interviews with key informants. All participants mentioned the importance of linking The Journal with clinicians/GPs as a way to make it more effective for service users. Almost all participants mentioned that this was part of the original plan; however, it never took any solid shape and form.

One clinician in particular said:

“What we didn’t do well is that we didn’t link it to primary care physicians via email, so people could not send the results to their doctors or anyone else. There wasn’t a way to have a third person involved so they could be sent reminders as to what the patient was supposed to be doing. It wasn’t done and still isn’t there”.

“Well we did get GPs packs put together back in 2012, and we did do a trial as we sent it out to some GPs, and we tried to engage with GPs and had lots of meetings. I think it was more like when you add something to GP’s to do list, they just go it’s too hard or we have too much to do, or we are too busy. I don’t think there was enough support to get the GPs on board”.

This was seen as a huge barrier, which prevented people from getting appropriate care and support. According to one clinician, it is an “unmet need”:

“I think linking with primary care would be one way of doing that. I guess the issue is how well resourced primary care is. There is a huge unmet demand out there, I am not sure whether primary care is in the position to meet that”.

From further questioning, it was understood that there needs to be more awareness, training and education for GPs, nurses and other primary care staff for this.

One participant said:

“One thing that came out of primary care research we did was that less than 1 in 10 GPs said they can’t use the MOH depression support tool, so that sort of suggests that if you design these things, you should build them into the system like Medtech. But you know you need to train them how to use these effectively”.

Similarly, another participant discussed the lack of information for primary care staff, which in turn prevents them from referring patients to this programme.

“I do think primary care is an important part of this, because of the whole issue around doctors and nurses having inadequate training”.

As a result of this, it was suggested that appropriate training to be provided not just to GPs, but nurses as well, who are usually first point of contact with patients.

ANOTHER STRATEGY FOR PROMOTION AND ADVERTISING

Although all participants in the group spoke highly of John Kirwin being used as a role model for the initiative, many participants took a step further and mentioned the use of more “*integrated promotion*” to make sure people actually understand it.

“How many people actually know about it? How much awareness do we need to build around it? There are people who aren’t even aware of these things, they might not even know that it exists till someone tells you about it”.

This could also mean not using John Kirwan as the only spokesperson, but maybe using “*champions*” or other “*service users*” to promote this program. This could also be further developed to allow people to link their results/information with peers, friends and family:

“For example Facebook comments, like someone chips in, other chips in and another person validates so people like that a lot. So having something like that in there, a bit of peer support will be quite good”.

“Yeah so like there can be an aspect of sharing it with others through social media or something, for example, hey I have just done my sleep hygiene and I had a really good night sleep and everyone goes wohoo”.

FIXED WITH NOT MUCH ROOM TO BE FLEXIBLE

Most participants in the review spoke about how fixed and inflexible the program structure is. For example, people need to log in multiple times, everything has to be completed step-by-step, and they cannot go back to a particular module—rather than the system giving people the ability to move around with ease. The quotes from the following two participants illustrate this perspective:

“Well people wanted the option to go back and re-do the modules, but what happened was that you would have to re-enrol and do them again, which they didn’t want to do. They just wanted to see well I have done this now, I want to go back and see whether that made a difference but that was not possible and that was the feedback from service users”.

“Some of the lessons I think the order people have to go through has been a barrier, one lesson and then next and then next. From what I remember there has been a massive dropout before the final lesson which an extremely good and evidence based lesson. I think making it more flexible will be quite beneficial”.

One clinician who played quite an important role in the development of the NDI also emphasized the lack of flexibility in The Journal having an impact on completion rates.

“The way journal was set up was like a game, you had to go through several stages so that has always been an issue for people as they may feel a bit held back”

A NEED FOR ONE-STOP SHOP

Another strong theme that emerged was that there needs to be a simpler way for people to engage with such self-help programs and systems. At the moment, “*there is NDI, the lowdown, Youthline, gambling, lifeline and a whole lot of different websites*”. Thus, instead of making it so complicated and difficult for people to find information and navigate around, it should be a one-stop shop.

“We should be saying to patients, go this website, an easy to remember website address and/or a 0800 phone number”.

“We had individual silos within the NDI, Journal team, Depression and the Lowdown, we were like what’s the point of having all these different communication channels?”

“It comes back to the point that there is a piece missing in terms of evidence, if you have some research showing that this increases positive outcome for people and is clearly measurable with GPs help. If you have got evidence and got RCT behind it, you know it gives a lot of power”.

GOING FORWARD

Interview participants identified the following factors as important to consider going forward with the NDI.

- Patient and user involvement including people from primary care.
- Cultural specific input from target populations to make it work for them.
- Investigating more the role of coaches – for instance primary care physicians can refer somebody to this program and they log in and get the e-therapy plus a coach.
- More languages incorporated into the system for it to reach and help people from different cultures and ethnic groups.
- Addressing the lack of evidence/RCTs to improve uptake in primary care and focusing on practice nurses as they may have more time with patients.

HEMOCARE MEDICAL STAFF SURVEY

COMPLETION RATE

The total number of responses was 6.

A completion rate cannot be calculated as an open invitation went out to Homecare Medical support staff from their managers.

HIGHLIGHTS

The number of respondents (n=6) is too small to provide highlights.

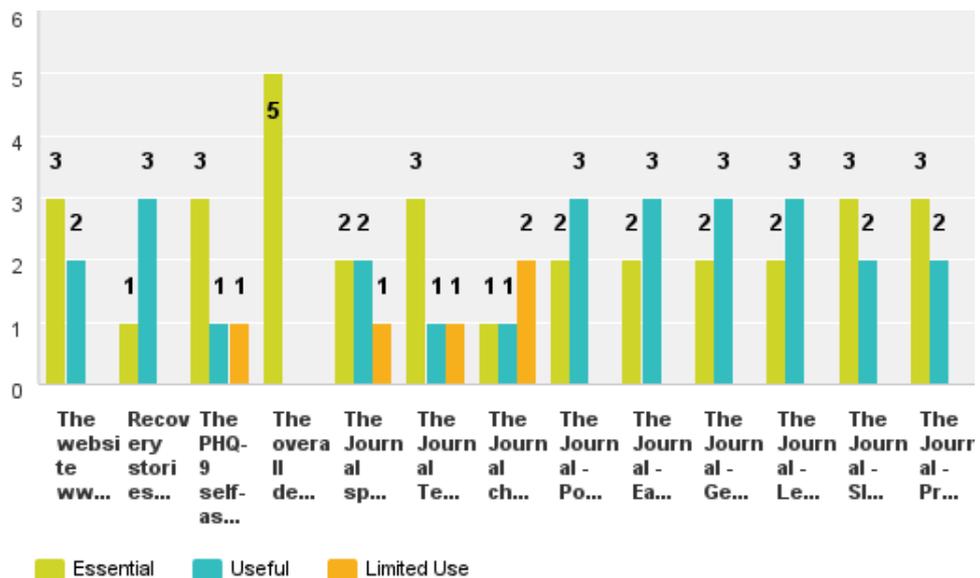
DEMOGRAPHICS /ROLE/PROFESSION

Demographics, role and profession have not been provided in this report.

As part of the ethics design and approval, participants of the survey were assured reporting would be de-identified.

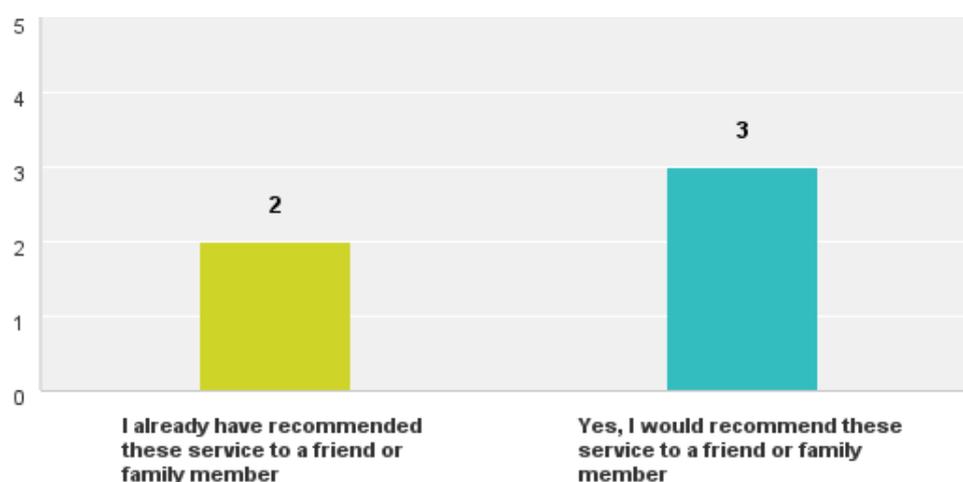
Due to small numbers of responses the gender, age, ethnicity, location, role and profession could be used to identify participants.

HOW IMPORTANT IS EACH PART OF THE SERVICE FOR THE PEOPLE YOU SUPPORT?



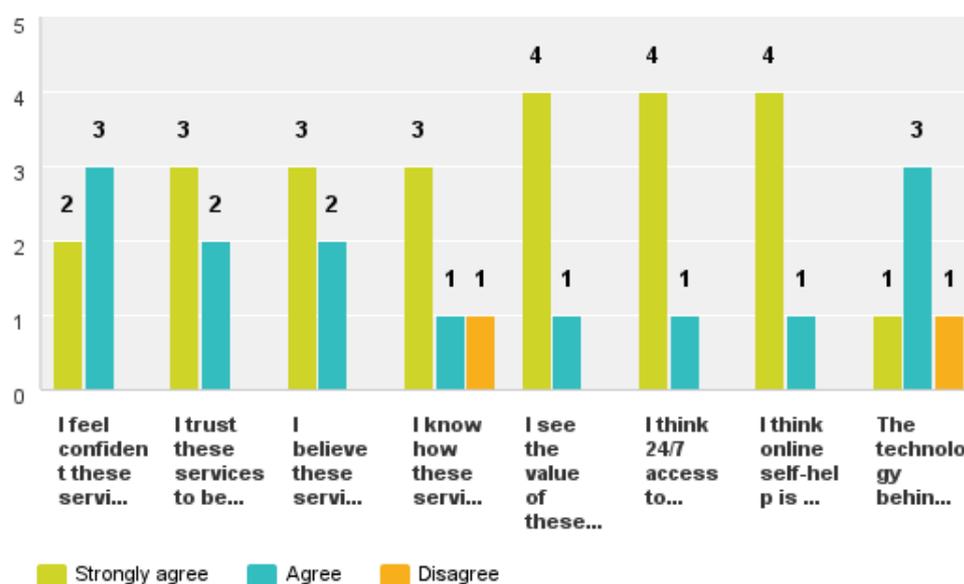
	Essential	Useful	Limited Use	Total
The website www.depression.org.nz	60.00% 3	40.00% 2	0.00% 0	5
Recovery stories on www.depression.org.nz	25.00% 1	75.00% 3	0.00% 0	4
The PHQ-9 self-assessment on www.depression.org.nz	60.00% 3	20.00% 1	20.00% 1	5
The overall depression helpline: 0800 111 757	100.00% 5	0.00% 0	0.00% 0	5
The Journal specific helpline: 0800 420 202	40.00% 2	40.00% 2	20.00% 1	5
The Journal Text Service 4202	60.00% 3	20.00% 1	20.00% 1	5
The Journal chat service (currently offline)	25.00% 1	25.00% 1	50.00% 2	4
The Journal - Positivity (the First Module)	40.00% 2	60.00% 3	0.00% 0	5
The Journal - Eating Right (an option of the Second Module)	40.00% 2	60.00% 3	0.00% 0	5
The Journal - Getting Active (an option of the Second Module)	40.00% 2	60.00% 3	0.00% 0	5
The Journal - Learning To Relax (an option of the Second Module)	40.00% 2	60.00% 3	0.00% 0	5
The Journal - Sleeping Better (an option of the Second Module)	60.00% 3	40.00% 2	0.00% 0	5
The Journal - Problem Solving (the Third Module)	60.00% 3	40.00% 2	0.00% 0	5

WOULD YOU RECOMMEND THESE SERVICES TO A FRIEND OR FAMILY MEMBER?



Answer Choices	Responses	
I already have recommended these service to a friend or family member	40.00%	2
Yes, I would recommend these service to a friend or family member	60.00%	3
Total	5	

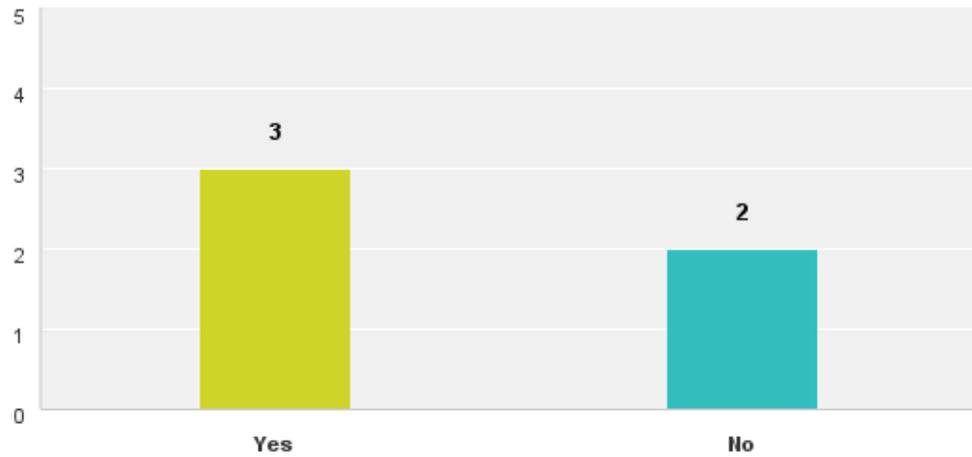
OPINIONS ON WEBSITE, THE JOURNAL AND E-MENTAL HEALTH



	Strongly agree	Agree	Disagree	Total	Weighted Average
I feel confident these services are high quality and clinically effective	40.00% 2	60.00% 3	0.00% 0	5	1.60
I trust these services to be helpful for service users	60.00% 3	40.00% 2	0.00% 0	5	1.40
I believe these services are an important part of the options for people with depression or anxiety	60.00% 3	40.00% 2	0.00% 0	5	1.40
I know how these services fit with the other options that people might use	60.00% 3	20.00% 1	20.00% 1	5	1.60
I see the value of these services in supporting people	80.00% 4	20.00% 1	0.00% 0	5	1.20
I think 24/7 access to counselling support staff is valuable	80.00% 4	20.00% 1	0.00% 0	5	1.20
I think online self-help is a key part of the future of mental health care	80.00% 4	20.00% 1	0.00% 0	5	1.20
The technology behind these services are up-to-date	20.00% 1	60.00% 3	20.00% 1	5	2.00

DO YOU THINK THERE SHOULD BE A REFERRAL PROCESS FOR THESE SERVICES?

For example, similar to the Quit Smoking service where you can refer patients and receive progress reports.



Answer Choices	Responses	
Yes	60.00%	3
No	40.00%	2
Total		5

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APPENDIX A – INTERVIEW PARTICIPANTS

This appendix contains details on the individuals interviewed as part of the producers/providers and potential referrers input:

Allan Wyllie	Consultant Evaluator
Andrew Slater	Chief Executive Officer, Homecare Medical
Bruce Arroll	GP, Greenstone Family Centre Professor, Auckland University
Carolyn Humphreys	Practice Nurse and Co-ordinator, East Tamaki Health Care
David Codyre	Psychiatrist, East Tamaki Health Care
Dylan Norton	Business Development Manager, Homecare Medical
Lyndy Matthews	Psychiatrist, Waitemata DHB and Homecare Medical
Martin Orr	Psychiatrist, Auckland University
Mel Shaw	Mental Health and Addictions Manager, Homecare Medical
Sadie Litchfield	Journal eCoach for RCT, University of Ottawa
Simon Hatcher	Psychiatrist and Vice-Chair Research, University of Ottawa
Simon Seivert	Digital Architect, FCB

APPENDIX B – REVIEW QUESTIONS

This appendix contains the questions used as part of this review.

SERVICES USERS

I signed up to The Journal:

- For myself
- To support someone else in my life
- To learn about The Journal for my work

PAGE 1 – DEPRESSION WEBSITE

Let's get started with some questions about the website www.depression.org.nz.

Remember your answers are anonymous so please be honest about your experiences and opinions.

1. How many times do you think you've visited this website?

- Once when I signed up for The Journal
- About 2 to 5 times
- About 6 to 10 times
- More than 10 times
- More than 20 times

2. Where did you hear about this website? You can choose one or more places.

- A friend or family/whānau member
- Seeing the adverts on TV
- My GP or Primary Care Nurse
- My Psychiatrist or Community Mental Health Nurse
- My counsellor or therapist
- Through Google or another search engine
- I found a link to it on another website or somewhere else - please let us know where here:

3. What was your main reason for visiting the website?

- I was looking for support for myself
- I was looking for support for someone else
- I am a health professional and was checking what's out there
- I am a student, researcher or journalist doing research
- Some other reason: Please let us know here

4. Did you find what you were looking for on this website?

- Yes, definitely
- Yes
- No
- No, definitely not

The first of 9 questions when you signed up

the journal self-test

#1 Over the last two weeks I have had little interest or pleasure in doing the things I usually enjoy

Not at all
 For several days
 For more than half the days
 Nearly everyday

NEXT

start ————— finish

Need help?
If you need to talk about your results with someone call The Journal Helpline on 0800 420 202. The helpline is available 24 hours a day, 7 days a week.

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5. When you signed up for The Journal you had to do a 9 question test (pictured) - was this helpful for you?

- Very helpful
- Helpful
- Unhelpful
- Very unhelpful
- I don't remember doing this test

6. Would you recommend this website to a friend or family member?

- I already have recommended this website to a friend or family member
- I would recommend this website to a friend or family member
- I wouldn't recommend this website to a friend or family member
- I don't do that kind of thing

Please let us know why you chose this answer:

7. Please let us know up to 3 ways we can improve this website or the test

PAGE 2 – THE JOURNAL

These next questions are about The Journal.

1. Where did you hear about The Journal? You can choose one or more places.

- A friend or family/whānau member
- Seeing the adverts on TV
- My GP or Primary Care Nurse
- My Psychiatrist or Community Mental Health Nurse
- My counsellor or therapist
- Through Google or another search engine
- When I visited the website www.depression.org.nz
- I found a link to it on another website or somewhere else - please let us know where here:

2. Choose one answer for each of the following sentences:

	Strongly agree	Agree	Disagree	Strongly disagree
I found getting set up with The Journal easy				
I like the way The Journal is designed				
I find The Journal easy to use				
I know I can reach out for help if I need to on the phone, text, email or chat (currently offline)				
The first chapter on positivity is useful for me				
The second chapter on lifestyle is useful for me				
The chapters on problem solving are useful for me				
The text and email reminders were helpful				
The Journal has helped me				

3. Would you recommend The Journal to a friend or family member?

- I already have recommended The Journal to a friend or family member
- I would recommend The Journal to a friend or family member
- I wouldn't recommend The Journal to a friend or family member
- I don't do that kind of thing

Please let us know why you chose this answer:

4. Please let us know up to 3 ways we can improve The Journal.

We'd also like to hear your ideas for getting the word out to more people who may benefit from using The Journal.

5. Did you finish The Journal? Or if you're part way through, do you plan to finish it?

- Yes - I finished or do plan to
- No - I didn't finish or don't plan to as I got what I needed
- No - I didn't finish or plan for some other reason

If you didn't finish or don't plan to, why is this?

6. Have you ever contacted the support team via phone, email, web chat or text?

Yes

No

PAGE 3A – PEOPLE WHO HAVE CONTACTED THE SUPPORT TEAM

Q6 – Answer = yes

These questions are about contacts with The Journal support team.

1. How have you got in touch with the support team? You can choose more than one method.

- 0800 111 757 (the main depression number)
- 0800 420 202 (The Journal number)
- SMS Text Message to 4202
- Email to support@depression.org.nz
- Web Chat (Please note, web chat has been offline since Nov 2015 so you will not have seen this if you signed up to The Journal after this date)

Which is your favourite method and why?

2. If you feel ok to tell us, please let us know why you contacted the team. For example, was it for personal support or help with the technology?

3. How satisfied were you with the support team?

- Very satisfied
- Satisfied
- Unsatisfied
- Very unsatisfied

Please let us know here why you chose this answer:

4. Would you recommend contacting the support team to a friend or family member?

- I already have recommended contacting the support team to a friend or family member.
- I would recommend contacting the support team to a friend or family member.
- I wouldn't recommend contacting the support team to a friend or family member.
- I don't do that kind of think

Please let us know why you chose this answer:

5. Please let us know up to 3 ways we can improve the support team:

PAGE 3B – PEOPLE WHO HAVE NOT CONTACTED THE SUPPORT TEAM

Q6 – Answer = no

Which of the following explains why you haven't contacted the support team? You can choose more than one.

- I haven't needed support
- I don't know how to contact them
- I am worried they will tell someone about what is going on for me, like my doctor or family
- I feel embarrassed about not being able to understand the computer
- I have no privacy to make a call or use my phone or computer
- Some other reason - please let us know here:

PAGE 4 – OTHER SUPPORT

These questions are about other support you may have used.

1. What other things have you tried to help with your depression/anxiety or to improve your wellbeing?

- GP or Nurse at the GPs
- Counsellor / Therapist
- Psychiatrist / psychologist
- Beating the Blues (an online program only your GP can prescribe)
- Medication such as an anti-depressant
- Peer or Community Support Worker
- Community Mental Health Service
- Crisis Team
- A hospital service where you stayed on a ward
- Spiritual or religious support
- Something else like a different website, helpline or an alternative health service like acupuncture or homeopathy - please let us know here:

2. Thinking of all the things you've tried, how does The Journal and the depression.org.nz website compare to these?

3. Would you like to see The Journal linked to other health services you might have used. For example, so a GP can see how your progressing and if you need additional support?

Yes

No

Please let us know why you chose this answer:

4. What makes the website www.depression.org.nz and The Journal most valuable, helpful and effective for you?

PAGE 5 – DEMOGRAPHICS

Demographics

It would helpful for us to know a little about you

I am

- Male
- Female
- Gender Diverse

My age is

- 18-21 years
- 22-25 years
- 26-30 years
- 31-40 years
- 41-50 years
- 51-60 years
- 61 or above

I live in: *displays dropdown of towns and cities in New Zealand and these four options:*

- I'd rather not say
- A city, but I'd rather not say which one
- A town, but I'd rather not say which one
- A rural area, but I'd rather not say which one

My ethnicity is: (you can choose more than one)

- New Zealand European
- Maori
- Samoan
- Cook Islands Maori
- Tongan
- Niuean
- Chinese
- Indian
- Other
- Please state: e.g. Dutch, Japanese, Tokelauan

Thank you once again for your time and input on this survey. If you would like to enter the prize draw to win one of ten \$50 Warehouse vouchers or get a copy of the results of this review, please click the link below.

Please note, you will need to enter a valid email for the prize draw and the results. If you choose to enter the prize draw, we will email the winners and ask for a postal address to mail the voucher to.

Any email addresses or postal address provided will only be used for the purpose they have been collected (i.e. the prize draw or sending results to) and will be kept separate from your answers to this survey. We will delete email addresses or postal address three months after the project is completed.

SEPARATE SURVEY – ENTER PRIZE DRAW OR REQUEST COPY OF FINDINGS

Thanks again for taking our survey.

Enter your email below to go into the draw to win one of ten \$50 Warehouse Vouchers or request a copy of the results of this review.

If you choose to enter the prize draw, we will email the winners and ask for a postal address to mail the voucher to.

We will keep any emails or postal addresses separate from your answers to this survey and will delete them three months after the project completes.

If you've clicked here by mistake or have changed your mind, please just close this website.

* I would like to:

- Enter the prize draw
- Be emailed a copy of the review results

Please enter a valid email here:

* I understand that I am voluntarily providing my email. If I choose to enter the prize draw I understand I will have to provide a postal address to receive the voucher if I win.
I understand

If you've asked for copy of the results, we will email these as soon as they are available.

If you've entered the prize draw - good luck! We will only contact you if you have won.

PRODUCERS AND PROVIDERS – INTERVIEWS

1. Please describe your connection to the website www.depression.org.nz or The Journal
 - a. What is or has been your role(s)?
 - b. What time periods are or were you involved?
2. When you first started your involvement with the NDI, what was your understanding of the rationale behind developing the website www.depression.org.nz or The Journal?
 - a. What were the key drivers for your involvement?
 - b. What were these based on – e.g. evidence of effectiveness or best practice, theoretical models, market trends, government policy?
3. As these services progressed, did the rationale evolve?
 - a. If it did, how did it evolve?
 - b. If it didn't – should it have evolved and if so, how?
4. Was there anything you wanted to achieve at the start that wasn't possible because of technical, pragmatic or other reasons?
5. What do you think is working well about the website www.depression.org.nz or The Journal?
 - a. What's the best feature(s) or offering(s)?
 - b. How does it compare with similar services around the world?
6. What do you think could be improved about the website www.depression.org.nz or The Journal?
 - a. What's the worst feature(s) or offering(s)?
 - b. How does it compare with similar services around the world?
 - c. Is there anything you feel is out of date?
7. From your involvement what do you think are:
 - a. The three factors that will support development of these services?
 - b. The three factors that will hinder development of these services?
8. Any other comments?

POTENTIAL REFERRERS – INTERVIEWS / FOCUS GROUPS

1. Please describe your current role and your interest in depression or anxiety services.
2. Please describe your understanding and awareness of the website www.depression.org.nz or The Journal?
 - a. When / how did you hear about these services?
 - b. What do you know about them, for example:
 - i. The website www.depression.org.nz is part of the NDI campaign
 - ii. It provides information and personal case studies for people experiencing depression and the people close to them
 - iii. You can do the PHQ-9 and learn about support options with a free 24/7 0800 advertised on every page
 - iv. The Journal is a free self-help 6-week program based on CBT with 24/7 access to support staff via freephone, email, text
3. What is your opinion of these services?
 - a. Are they high quality and clinically useful / effective?
 - b. Do you trust them as a place to send patients?
 - c. Where do they fit for you in the options you can give your patients?
 - d. Up to date with latest practices in the self-help world?
4. Have you signposted patients to these services? (Signposted – i.e. given the website address or phone number either verbally or written down, or shown the website on your computer)
 - a. If not, is there a reason for this?
 - b. If you have, why and have they ever reported back to you on their experience?
5. When you are considering the options for someone with depression and anxiety, where does signposting or referral to online or helpline services fit in? And why?
 - a. Are they ‘front of mind’ or an afterthought?
 - b. Are they key components of the range of things you might offer or peripheral – nice to have’s rather than must haves?
6. What more could the website www.depression.org.nz or The Journal do to support you to support patients with depression and anxiety?
 - a. How can it best be linked to the support you’re giving?
 - b. Would referral and reporting back be useful and in what ways?
 - c. Do the services need to be extended in any way?
7. What do you think would help or hinder the closer alignment of primary care support for patients with depression and anxiety and NDI support?
 - a. The three factors that will help alignment?
 - b. The three factors that will hinder alignment?
8. Any other comments?

POTENTIAL REFERRERS – ONLINE SURVEY

PAGE 1 – EXISTING KNOWLEDGE

Let's get started with some questions about what you already know about this service.

Remember your answers are anonymous so please be honest about your experiences and opinions.

1. The National Depression Initiative offers a range of support options - please tick those you already know about:

- The website www.depression.org.nz
- 0800 111 757 staffed by a 24/7 counselling-led team
- The PHQ-9 self-assessment on www.depression.org.nz
- Recovery stories on www.depression.org.nz
- The Journal - a free 6 week, CBT-based self-tool
- Extra options for The Journal including SMS Text, Email and Web Chat Support
- Information and helpline support for those supporting others with depression
- A website, SMS text and email service for youth (www.thelowdown.co.nz) [not part of this review]
- I wasn't aware of any of these services

2. Have you ever suggested these services to a patient?

For example, told them about the website or helpline number, written it down for them or shown them the website?

- I have never suggested these services to a patient
- I occasionally suggest these services to patients
- I often suggest these services to patients

You can use this space to tell us which services you do or don't suggest and why:

3. Please use this space to let us know any feedback on these services that you've heard from patients:

4. Would you recommend these services to a friend or family member?

- I have already recommended these services to a friend or family member.
- Yes, I would recommend these services to a friend or family member.
- No, I wouldn't recommend these services to a friend or family member.
- I don't do that kind of thing

Please let us know why you chose this answer:

5. Please let us know up to 3 ways we can improve this website or The Journal:

PAGE 2 – OPINIONS

These questions are about your opinions of these services. Please remember your frankness is really important!

Please select which of these statements you agree or disagree with:

	Strongly agree	Agree	Disagree	Strongly disagree
I feel confident these services are high quality and clinically effective				
I trust these services to be helpful for my patients				
I believe these services are an important part of the options I can suggest				
I know how these services fit with the other options I can suggest				
I see the value of these services in supporting my patients				
I think 24/7 access to counselling support staff is valuable				
I think online self-help is a key part of the future of mental health care				
The technology behind these services are up-to-date				

2. How can these services help you in supporting patients?

3. Do you think there should be a referral process for these services? For example, similar to the Quit Smoking service where you can refer patients and receive progress reports.

Yes

No

Please let us know why you chose this answer:

4. Please use this space to tell us anything else about these services or supporting patients with depression or anxiety in primary care:

PAGE 2 – DEMOGRAPHICS

It would helpful for us to know a little about you.

My current role is best described as:

- GP
- Practice Nurse
- Primary Care Mental Health Coordinator

- Psychologist
- Psychiatrist
- Counsellor
- Therapist
- Administrator
- Team leader
- Manager
- Other (please specify)

I am

- Male
- Female
- Gender Diverse

My age is

- 18-21 years
- 22-25 years
- 26-30 years
- 31-40 years
- 41-50 years
- 51-60 years
- 61 or above

I live in: *displays dropdown of towns and cities in New Zealand and these four options:*

- I'd rather not say
- A city, but I'd rather not say which one
- A town, but I'd rather not say which one
- A rural area, but I'd rather not say which one

My ethnicity is: (you can choose more than one)

- New Zealand European
- Maori
- Samoan
- Cook Islands Maori
- Tongan
- Niuean
- Chinese
- Indian

- Other
- Please state: e.g. Dutch, Japanese, Tokelauan

Thank you once again for your time and input on this survey.

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SEPARATE SURVEY – REQUEST COPY OF FINDINGS

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If you've clicked here by mistake or have changed your mind, please just close this website.

I would like to:

- Be emailed a copy of the review results

Please enter a valid email here:

* I understand that I am voluntarily providing my email.

APPENDIX C – LITERATURE SEARCH CRITERIA

This appendix details the published literature search criteria.

SEARCH TERMS

- E-Mental Health
- Telehealth Depression
- Telehealth Anxiety
- Telehealth Mental Health
- Online Cognitive Behavioural Therapy*
- Online Depression Support
- Online Anxiety Support
- Online Mental Health
- Website Mental Health
- Website Depression
- Website Anxiety
- Self-help tools for use for depression and anxiety

SEARCH PERIOD

Articles from 2010 to present day.

Rationale: The Journal was launched in 2010.

SEARCH FOCUS

- Prioritise articles from New Zealand and Australia and industrialized and developed countries e.g. Europe, United States and Canada
- Prioritise articles addressing pertinent issues, including addressing health inequalities and managing rural and urban populations,
 - Rationale: focusing on countries with comparable health and social structures and issues.

*When looking at Online Cognitive Behavioural Therapy have a focus on the tasks involved – for example where does the cooking lesson align with comparable tools.

Whilst not a priority, HPA are also interested in literature that may emerge through this search relating to marketing of health services like the website www.depression.org.nz and The Journal such as including channels, styles, public education methods e.g. media campaign and/or targeted awareness raising and champions.

APPENDIX D – PERSPECTIVES FROM CANADA

The Mental Health Commission of Canada has been driving the discourse around e-mental health in recent years and below are some of the pertinent information from the briefing paper “E-mental health - Transforming the Mental Health System Using Technology”.

The paper highlights the importance of using technology in mental health services for both users and service providers.

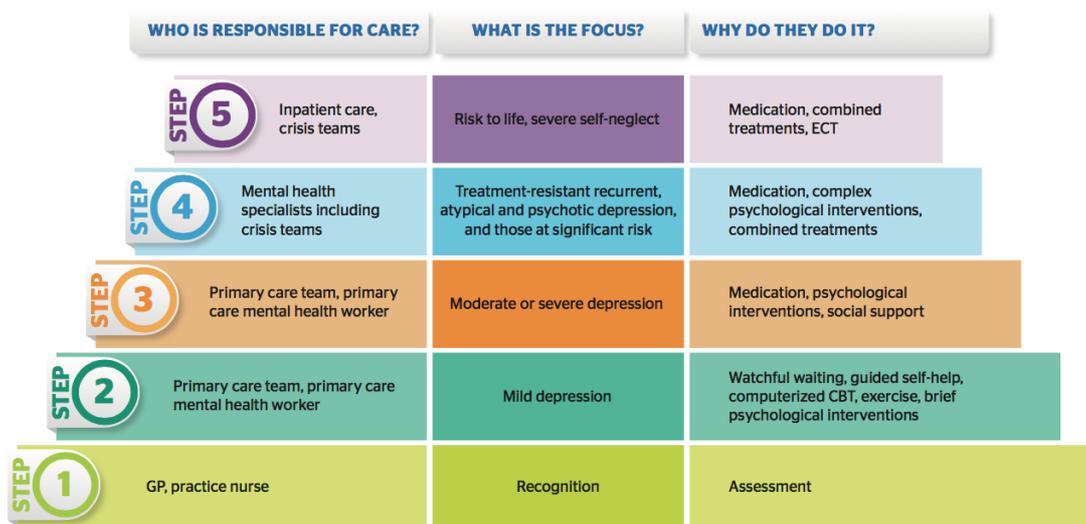
From a user perspective, it is convenient, can provide services tailored for particular groups, and help patients avoid stigma. For service providers, it can address workforce issues by providing similar therapeutic services online, thereby decreasing wait times and workload.

Mental Health Commission of Canada (2014)

E-MENTAL HEALTH AND STEPPED CARE

They identify the biggest challenge faced by the healthcare industry is how to integrate such technologies into existing pathways of care. As with many countries, they utilize a stepped-care model where people receive the least intensive treatment with the greatest likelihood of improvement and are elevated to a higher step if needed where they receive more intensive treatment.

Stepped-care model for depression



Source: Adapted from NICE (224), Depression: Management of depression in primary & secondary care.

The above model represents a pathway for depression. It is recognized that it could be adapted to represent other health practitioners, areas of focus, and rationale for treatment that are relevant to other mental health problems and illness.

CURRENT AND POPULAR E-MENTAL EHEALTH TECHNOLOGIES

The infographic below shows some of the current and most popular existing technologies that are supporting e-Mental health services and resources in Canada.



The table below provides more details:

Technology	Description	Examples (where listed in the report)
Robots	Robots in mental health care have mainly been used in settings involving the care of people with dementia. Evidence in residential health care demonstrates that these robots can reduce loneliness in those with dementia and increase social interactions.	The two types of robots that have been used are therapeutic robots that mimic animals, such as Paro (a robotic Canadian harp seal developed in Japan; see www.parorobots.com), and those specifically designed for health care, also known as healthbots.
Peer support through social media and other technologies	Online peer support is the opportunity to seek and obtain support from others facing similar problems. The advantages of doing this online are the opportunities to meet a significant number of people and tap into crowd sourcing.	An example of this in the mental health field is Big White Wall (www.bigwhitewall.com), which is an anonymous online service for people in psychological distress. It offers support for self-management of mental health issues, information, and online therapy using a webcam, audio, or instant messaging.
Virtual reality	Virtual reality is the computer generated simulation of a three-dimensional environment that is now being used in	

Technology	Description	Examples (where listed in the report)
	<p>mental health care, especially for those with anxiety disorders. The advantage of virtual reality is that it can be used to create scenarios that may be impossible to replicate in real life, for example in the treatment of post-traumatic stress disorder in soldiers.</p>	
Gaming	<p>Gaming can be a good way to learn, and it is now being used to teach cognitive behavioural skills to people with mental health problems and illness.</p>	<p>An example of this is Sparx (www.sparx.org.nz), a game based on an imaginary island where participants go on a quest and have to fight negative automatic thoughts (NATs), and overcome problems to progress. The game, aimed at teenagers, has been shown in a randomized controlled trial to be as effective as usual care in youth with mild to moderate depression.</p>
Computerized treatments, resources and apps	<p>Computerized interventions deliver services directly to patients with or without the aid of a person. The interventions are based on established face-to-face therapies; usually some form of cognitive behaviour therapy. Most have been developed for the treatment of depression or anxiety.</p> <p>The National Institute for Health and Care Excellence (NICE) guidelines from the UK now recommend that computerized cognitive behaviour therapy be offered as a first-line treatment to people living with mild to moderate depression.</p> <p>There is also a role for computerized therapies in stepped-care where people with mild illnesses are treated by computerized programs, freeing up clinicians to spend more time with the more severe cases.</p> <p>The provision of computerized therapies started before the widespread use of smartphones. Computerized therapies are now migrating onto mobile phones and there are literally thousands of health apps. These vary from the provision of information and resources, to more formal cognitive behavioural and other therapies.</p>	<p>One of the earliest and best known computerized interventions is “MoodGym” (www.moodgym.anu.edu.au), which now has over half a million registered users and is being translated into Chinese.</p> <p>Other programs include “Beating the Blues” from the UK (www.beatingtheblues.co.uk), and “The Journal” from New Zealand (www.depression.org.nz). Programs have evolved from being largely text-based, to using videos, to linking to email and mobile phones, and being part of a national anti- depression campaign using celebrities and TV advertisements.</p> <p>One website that acts as a repository of different websites and mobile applications (apps) for mental and physical illnesses is Beacon (www.beacon.anu.edu.au), which also provides a rating for the different programs. Systematic reviews of these interventions have generally been shown to be more effective than passive controls, such as waitlists, and as effective as face-to-face cognitive behaviour therapy.</p>
Big data	<p>Big data refers to the use of large amounts of data to predict future behaviour and outcomes. This is similar to the Amazon or Netflix model of using past buying behaviour to predict and offer to the</p>	<p>Examples in mental health include the use of data from individual health providers on who responds to what treatment to predict what individual patients should be offered in the future.</p>

Technology	Description	Examples (where listed in the report)
	<p>consumer products that they will be likely to purchase.</p>	<p>Another is the use of predictive analytics to detect people at high risk of suicide or homicide. This would involve monitoring social media and other data to detect suicidal “signatures” and then providing an intervention to prevent suicide. This clearly has practical, legal and ethical issues where mental health workers could be seen as “homicide or suicide prevention officers.”</p>
<p>Wearable computing and monitoring</p>	<p>Wearable computing includes innovations such as Google Glass, as well as apps that monitor activities, physiology, and habits. The advantage of these devices is that they provide sophisticated, often real time data to both the patient and clinicians about important outcomes. These can range from simple physiological measures such as weight, sleep patterns or electrocardiograms, to the measurement of habits such as diet.</p>	<p>Apps embedded in mobile phones can use all the data collected from sensors within the phone such as location, accelerometer, gyroscope, and light sensitivity to infer mood and behaviour, meaning that patients do not have to remember to record data (for example, http://tech.cbits.northwestern.edu/purple-robot/). Such data may also provide individual relapse signatures so that relapse can be predicted and prevented.</p> <p>Other examples include the measurement of exercise and daily recording of mood. In the field of geriatric health care some centres now equip people with dementia with electronic tags that activate an alarm if they wander off the premises.</p>
<p>Telemedicine</p>	<p>Telehealth and telemedicine are both well-established methods of delivering health care and information over a distance, and have evolved from the use of the telephone in health care to providing both services and information to patients.</p> <p>The advantages of telemedicine are the added information that live pictures provide, and the ability to bring together people who are geographically dispersed.</p>	

RECOMMENDATIONS OF E-MENTAL HEALTH

The following nine recommendations were made to:

Inform the development and implementation of e-Mental health, bringing greater credibility, investment, and interest to the area.

1

Person-centred care: E-Mental health services should be designed as 'person-centred' so that their individualized needs are prioritized. It is also important to take into account cultural appropriateness within certain population groups, such as First Nations populations or youth. Any new services or technologies should be created in collaboration with the end-user to ensure appropriateness, effectiveness, and usability.

2

Scalability: When designing e-Mental health services and technologies, consideration for success measures should include that they can be adapted to, or expanded for, larger groups of people. Scaling up to service thousands of users is different from a small research study of 50-100 cases. Feasibility, security, privacy, interactivity, robustness, usability with emerging technologies, and staffing requirements all need to be considered.

3

Quality assurance framework: Similar to how traditional care is regulated, e-Mental health providers need to assure users that they adhere to the same standards of quality and safety as providers of face-to-face services. Quality assurance of the service and program fidelity maintenance are important to ensure the services are being delivered as designed and intended. This requires ongoing outcome evaluation with reporting to referrers, users, and funders.

4

Research:³ E-Mental health services and related technologies that receive public funds must be based on effective evidence. This includes investment in research and evaluation hubs in e-Health that bring together academia, patients, and industry.

5

Knowledge translation & exchange:⁴ E-mental health services should be better promoted through increased knowledge sharing and exchange. There is a need to create knowledge hubs consisting of key stakeholders, so that e-Mental health services consistently involve consumers, caregivers, and health professionals in their development and uptake. Provincial, territorial and national e-Mental health portals should be provided for one-stop access to effective therapies and information about mental health problems or illness.

6

Integration with the wider health and technology policy framework: The e-Mental health strategy operates in a health system which is also changing in different ways and at different rates within each province and territory, and at the federal level. The same applies to the introduction of technology into Canada, such as the provision of broadband access and mobile phone technology. Therefore, e-Mental health needs and opportunities should be taken into account when designing health system and technology policy.

7

Integration with existing health services: There is a need for an e-Mental health support system that engages and trains health care providers. Such a support system would aid in driving its uptake by health providers, offer guidance on how e-Mental health fits into existing referral systems (from primary to secondary care), and provide advice on quality standards when purchasing e-Mental health systems. An existing model for the implementation of electronic health records and related IT needs already exists in Canada Health Infoway.

8

Sustainability: Continuous support for e-Mental health services will be required to be successful, and ensuring such support must be included at the very outset of the planning process. Among the critical factors to be considered are operating costs, future funding, governance, obsolescence, and information storage.

9

Privacy and security: There is a need to agree on national standards for user privacy and security of personal information that is consistent with existing and proposed principles and legislation for online health information.

APPENDIX E – PERSPECTIVES FROM AUSTRALIA

Following a 2015 review of all mental health services (including e-mental health) Australia is about to transition into a population-based funding model on 1 July 2016, where 31 newly established Primary Health Networks will fund mental health, addiction and suicide prevention services by geographically demarcated zones.

It is unclear if or how many e-mental health initiatives will operate under this new model as most are federally (nationally) funded.

There is reference to a new, federally funded national digital gateway for mental health, addictions and suicide prevention that appears to have e-mental health components:

Digital Gateway

Harnessing innovative digital mental health technologies via a single entry point gateway. The gateway will navigate people to the most appropriate service for their individual needs.

Ley (Minister for Health) 2105

These reforms build on a decade of strategic e-mental health policy in Australia.

In 2012 the Australian Government Department of Health and Ageing issued the e-Mental Health Strategy for Australia. It is described in detail as it is the most recent approach and incorporates the earlier “2020 vision” document published in 2009.

Service investment is more than \$70M since 2006 with more than \$110M planned to 2016. The Strategy is governed by an Expert Advisory Committee and includes coordinating and promotional activities along with new service delivery initiatives, such as a portal, virtual clinic, and continuation of existing online and helpline support services.

Part of this is e-Hub and e-Hub Assist (ehub.anu.edu.au/welcome.php / ehub.anu.edu.au/assist/) which can be used anonymously, 24 hours a day, from anywhere in the world. All programs are provided free of charge.

e-hub Assist is a portal of resources for people who use e-hub services, and e-facilitators who support others to use e-hub’s online self-help programs. It can be used by many people including mental health professionals, other health professionals, teachers, youth workers, carers and support workers.

Batterham et al.(2015) published a paper on “Developing a roadmap for the translation of e-mental health services for depression” identifying four models of e-mental health with examples and advantages:

Description	Examples	Advantages
Open Access, Unguided		

<p>Publicly available, generally free, without requirement for clinician involvement. Maintenance and updating are supported by Government grants or grants from other funding bodies to research institutions or health organisations.</p>	<ul style="list-style-type: none"> • MoodGYM (moodgym.anu.edu.au) • BluePages (www.bluepages.anu.edu.au) • MyCompass (www.mycompass.org.au) • Thiswayup/self-help (thiswayup.org.au/self-help) 	<ul style="list-style-type: none"> • The ease of referrals. • The centralised financing mechanism (no need for clinicians to administer payments). • The possibility for individual users to directly access programmes without requiring clinician input.
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Health Service Supported

<p>Similar to open access, unguided, but offered directly through traditional health services. This approach of embedding e-mental health programmes within the existing framework of mental health services has gained less traction in Australia than overseas</p>	<p>National Health Service (NHS) trial delivery of the unguided MoodGYM programme directly through the NHS Choices portal using direct-to-public advertising on the NHS website and in NHS-branded newsletters, emails and social media, finding significant increases in well-being and significant decreases in depression and anxiety symptoms.</p>	<p>Same advantages and barriers to the open access model, except that the method of making the service available may increase use for those who access traditional services, while decreasing use among those who have limited access to clinical services.</p>
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Private Ownership

<p>Users pays directly for use or with payments subsidised by health insurance programmes or organisations for their employees. This model may require referral from clinicians.</p>	<p>Dutch Interapy programme (also accessible in Australia, www.interapy.nl) provides online therapy with a psychologist for 5–20 weeks covered by Dutch health insurers, if the client is referred by a medical doctor. Otherwise, participants may enrol and be billed directly for treatment costs. Employers may also cover such programmes for their employees.</p>	<ul style="list-style-type: none"> • Possibility of directly reinvesting income into maintaining and updating programmes. • Some flexibility in payment models, as there may be scope to offer programmes to consumers through Primary or other government entities paying for access to services. This system has worked in the United Kingdom, where programmes like bigwhitewall.com are provided to patients through local NHS Trusts.
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Clinically Guided

<p>Guidance for patients doing online mental health programmes has generally been shown to result in larger symptom reductions than for unguided programmes, although the effects of guidance may be modest.</p>	<ul style="list-style-type: none"> • Thiswayup/ clinic (thiswayup.org.au/clinic) • MindSpot treatment courses (www.mindspot.org.au) 	<p>The direct support by clinicians. However, this advantage may also be a barrier to uptake, particularly in regions with low availability of clinicians and for people who do not access services or have high levels of self-stigma. Because of such barriers, there is emerging research to explore alternative forms of guidance to increase programme completion and engagement, including peer-based guidance and group-based guidance.</p>
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APPENDIX F – DOCUMENTS RECEIVED FROM THE HEALTH PROMOTION AGENCY

This appendix contains a list of the documents received from the HPA:

MISCELLANEOUS

- Journal Phase 2 – 6 Month Follow Up Report | FCB – 2014, ref: 509974v1
- Summary of research reports to inform the depression.org.nz refresh| HPA Memorandum – June 2015
- A randomised controlled trial of JK's "The Journal" for depressed out-patients | Simon Hatcher and Robyn Whittaker, University of Auckland – 18 July 2014
- Evaluation of the National Depression Initiative | Rhema Vaithianathan, University of Auckland – 1 June 2010
- Research informed recommendations for on-going development of the National Depression Initiative | Phoenix Research – October 2013

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