Viewpoint

Web-based self-management programs for bipolar disorder: insights from the ORBIT trial

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Abstract

Web-based self-management interventions provide significant opportunities for chronic mental health conditions. This paper details the development process of one such intervention for bipolar disorder, seeking to improve quality of life. The opportunities and challenges in developing an engaging, evidence-based, safe intervention are discussed within the context of three nested domains: (1) intervention development, (2) scientific testing of the intervention, and (3) ethical framework including risk management. Insights and strategies for future directions are discussed to assist other researchers in this space to accelerate progress towards the next generation of online interventions.

1. Introduction

The well-documented strengths of online delivery for psychological interventions – flexible access across space and time, low cost and potential for personalisation [1-4] – have been bolstered with growing evidence that clinical effect sizes for many common clinical presentations are as large as those achieved by traditional face-to-face interventions [5-7]. As more and more of human life is mediated through technology, it is perhaps not surprising that the archetypal personal encounter of psychotherapy is also finding its feet online.

The aim of this brief review paper is to accelerate progress towards the next generation of online interventions by critically reviewing the experience of one, very particular, online treatment development process. The overarching aim of the ORBIT project was to develop and test an online self-management intervention for people with late-stage bipolar disorder (BD) [8, 9]. Apart from the novel target population, the project was innovative in having quality of life as a primary outcome variable.

BD is a complex, relapsing mood disorder characterised by significant morbidity and mortality. Functioning levels vary widely between and within individuals: those with BD therefore present a challenge for services organised around management of chronically low functioning patients [10, 11]. Web-based self-management programs for this group represent a unique opportunity to address this need [12]. Unfortunately, web-based self-management programs targeting BD are under-represented relative to programs targeting other psychiatric conditions [13]. Developing an engaging, evidence-based, safe online self-management program for individuals with BD presents special challenges but also opportunities.

(insert Figure 1 about here)

Figure 1. Project domains
We hope that the information presented here will be of use to others developing and testing online psychological interventions. Our insights are consequently organised in three domains: (1) development of the intervention, (2) development and conduct of a rigorous scientific test of the intervention’s efficacy and mechanisms of action, and (3) development of a best-practice risk management and ethical framework for the trial (and ultimately for the roll-out of the intervention). From an overarching project perspective, it is useful to think about these three domains as nested (Figure 1).

1.1 The ORBIT project

Our international team is currently in the latter phases of recruitment for the randomised controlled trial component of the ORBIT project. The trial compares two contrasting interventions, referred to as self-management programs (Mindfulness vs. Psychoeducation) for BD [9]. The web-based programs aim to improve quality of life in those with ‘late stage’ bipolar disorder (defined as 10 or more mood episodes). The programs (accessible via personal computer, tablet and mobile phone) are brief (4 modules delivered over 5 weeks), self-paced, interactive and tailored to bipolar disorder. They incorporate a range of multi-media components to maximise engagement and motivation: videos of consumers with the lived experience and clinicians (shaping program content), audio files for practicing learned concepts, interactive exercises, quizzes, static images and downloadable PDF content for further learning opportunities. Guided support is offered via once-weekly asynchronous messages (from trained coaches); peer support is offered via moderated forums and the ability for users to connect privately with each other via a secure-messaging system embedded in the program. The programs are intended to be highly interactive: users are encouraged to track and monitor well-being via an embedded tracking tool, complete interactive exercises and reflect on their participation as they complete each module, contribute to forums, connect with other users (fostering social support) and message their coach for assistance. Engagement and adherence is encouraged via coach messages, seeded forum posts and cognitive behavioural principles to facilitate practice of skills in everyday life.

Unlike the standard approach of adapting validated face-to-face psychological interventions for online delivery, the programs were bespoke online interventions. Content was driven by
evidence-based psychological treatments, offered via two arms: (1) Psychoeducation for bipolar disorder (serving as the active control condition), and (2) Mindfulness for bipolar disorder (incorporating elements of mindfulness-based CBT, self-compassion and Acceptance and Commitment Therapy). Full details of the ORBIT project are outlined in the protocol paper [9].

2. Key Learnings: Opportunities and Challenges

Insights from the ORBIT project are now considered in terms of strategies to optimise the intervention, scientific considerations for testing the intervention, and the framework that was developed to optimise ethical conduct of the research and delivery of the intervention.

2.1 Intervention

Here, the intervention offered in the ORBIT project refers to the web-based self-management programs. A number of strategies were used to optimise these programs, now detailed.

2.1.2 Consumer input

Consumers with lived experience of bipolar disorder were involved in all phases of program development, aligning with the Consumer-Based Participatory research (CBPR) approach [14]. Consumer feedback from the pilot phase [8] guided content development for the current iteration of ORBIT. Intervention content is largely driven by the consumer voice, captured via videos of those with lived experience of bipolar disorder. A local Consumer Advisory Group (CAG) was established for the ORBIT project. Members played an integral role in providing feedback on content and the website itself (look-and-feel, ease of use, any perceived benefits/barriers) to ensure its' appropriateness and relevance to those with bipolar disorder.

As part of the RCT, qualitative feedback from participants completing the program is collected to (1) guide future developments and (2) provide insights into their level of engagement with the online intervention. These practices extend beyond the usual application of face-to-face intervention for web-based format by allowing a largely consumer-driven process. This approach ensures the program is tailored to the population it seeks to serve, and aligns with the recovery model focus of empowering consumers via their active involvement in all stages of intervention development and testing.

2.1.3 Use of multimedia to develop content and explain concepts

Our international team of researchers, clinicians and consumers initially developed and piloted program content drawn from mindfulness-based therapies [8]. The program was then extensively revised and extended, iteratively developed via a dynamic interplay of theoretically-derived therapeutic content and footage from videos of consumers with lived experience of bipolar disorder. Content for web-based interventions is often adapted from
face-to-face psychological intervention for online delivery, as part of a one-step process where content is largely defined up-front. By contrast, ORBIT content was progressively developed over a 6-month period. The process commenced with the ‘top-down’ development of a semi-structured interview schedule, drawing from broad topic areas aligned with mindfulness-based therapeutic approaches and bipolar disorder psychoeducation. Clinical psychologists and mindfulness practitioners were consulted on topic areas to ensure that questions were grounded in a psychological framework. Next, 12 consumers were recruited to participate in the filming process: consumers were selected on the basis of gender, age, cultural background and a range of experiences with mindfulness, acceptance-based approaches and self-management strategies (e.g. recognising early warning signs and triggers), ensuring a representative sample that ORBIT participants could relate to. The video process adopted a documentary-style interview, lasting up to 2 hours per person, undertaken with a professional film crew. Consumers were encouraged to speak from personal experience, to ensure footage captured the central 'consumer voice'. This 'bottom-up' generation of program content was balanced within the 'top-down' psychological framework – footage was carefully reviewed and the project team iteratively re-visited the planned content and structure of the intervention to maintain this balance.

Hours of footage were edited into 'snippets' from a range of consumers and combined into short videos (3mins on average in length) describing particular skills and experiences. This new type of delivery (documentary-style videos as an engagement strategy for online interventions) ultimately led to a novel way of developing an online intervention – and ultimately, a new intervention. The final stage of development involved fleshing out content from videos, including key summary messages, supplementary text and MP3 audio files (allowing for in-the-moment experiential practice of newly introduced concepts) to promote leaning and encourage skill development. Program content was then reviewed by our local and international Consumer Advisory Groups, and revised based on their feedback. Overall, feedback indicated that videos successfully captured the consumer voice, providing a 'real-world' feel that people could relate to, adding credibility to the program (balancing realistic messages with hope), reducing stigma and allowing subtle processes to be described in an engaging and personalised way:

"I like the real experiences shared by those with Bipolar better than those put forward by clinicians. A shared personal lived experience of Bipolar resonates deeply. Whereas I always feel a clinician is regurgitating something from a textbook or re-telling someone else’s personal story: they haven’t lived it, so they will never truly know." (Female, age 51, bipolar II disorder)

Finally, the use of informational PDFs, clinician videos and instructional videos (e.g. consumer or expert walk-through, how to use a mood tracking tool) allows concepts to be easily understood within a user-friendly context. The online environment lends itself to participants re-visiting content as needed, at their own pace, to consolidate their understanding and facilitate repeated practice.
Content is guided by psychological principles, thus consideration of how this can be made engaging, interactive, flexible and appealing is essential to the success of any online self-management program. Given the cognitive impairments common in those with bipolar disorder, practical considerations (e.g. being able to start, pause and recommence topic areas; videos of short duration accompanied by transcripts; length of exercises; language; neutral colours and icons) were carefully considered to ensure ongoing engagement.

2.1.4 Access to an online community

The programs were designed to maximise constructive engagement by participants having access to an online community (other participants, moderated forums), allowing them to link in with social support that may not otherwise have been realised (ref). This can provide a sense of normalisation and a way in which they can also support others. The forum facilitates sharing of key learnings as participants navigate through the program, and a secure-messaging system allows participants to foster connections with other users if they so wish (extending social support networks outside of ORBIT). Participants are assigned an online coach as part of the ORBIT community, with asynchronous message support. As overviewed by others [15], support in web-based interventions for bipolar disorder and other psychological conditions reduces drop-out rates, making them comparable to rates observed in face-to-face therapies.

2.1.5 Clinical cautions

Our group has been interested in developing novel psychotherapies for BD, drawing on third wave principles of mindfulness and self-compassion [16]. There have been anecdotal concerns in the literature about potential iatrogenic effects of mindfulness for people with BD [8]. One of the arms in the ORBIT project contains such elements, requiring meticulous attention to ethical issues and risk management. Current mood state is an important factor to consider when introducing those with bipolar disorder to experiential techniques within an online intervention, given the risk of triggering mood dysregulation. Clinical caution messages (both within the content, and incorporated into audio exercises) are used to empower participants to consider whether practicing a particular technique at that moment would be beneficial or should be delayed. For instance, anecdotal reports of body scan exercises that are lengthy (e.g. 20 minutes or longer) indicate they can be triggering for some, thus cautions based on current mood state can be particularly useful (e.g. Figure 3). This type of encouragement allows participants to self-pace through the program, allowing for increased engagement and a sense of autonomy. Participants are encouraged to reflect on exercises, and any adverse events arising that are directly related to intervention content are logged.

(Insert Figure 3 about here)
2.1.6 **Sustainability**

A widely recognised problem in internet delivery is transitioning from research-funded development and trialling of an intervention, to long term sustainable delivery outside a research funding environment. Swinburne University of Technology has been at the forefront of improving sustainability of online interventions by advocating (successfully) for the national recognition of eTherapy hours as integral to the training of Clinical Psychology Masters students (25 eTherapy hours approved by the Australian Psychological Society College of Clinical Psychologists). In the ORBIT trial, and in future potential iterations of the ORBIT website beyond the research phase, the primary personnel support (coaching) is provided by Clinical Psychology Masters students as part of their first internal placement at the University, a model which can be generalised to any psychological interventions offered in Australia.

2.2. **Science**

2.2.1 **Randomization and allocation**

A key facet of minimising bias in treatment trials is ensuring that participants are randomly allocated to comparison conditions [17]. Online RCTs benefit from the use of fully automated computer-generated blocked randomization and allocation methods, ensuring all aspects of randomization are fully concealed to research personnel. Such methods are superior to traditional RCT methods (e.g. sequentially numbered opaque sealed envelopes, central randomization by telephone to a trials office, etc.) as no human involvement is required (an airtight method of concealment, reducing bias) and time-efficiency is achieved (randomization and allocation can occur within seconds of each other, allowing participants to commence the intervention almost immediately). The latter is particularly important for studies involving those with frequent mood changes (i.e. bipolar disorder) that can occur within hours/days, impacting study data.
2.2.2 Defining ‘dose’ in the online context

A central challenge posed by the online context is how best to define intervention ‘dose’. An effective ‘dose’ can constitute the level of engagement needed for participants to benefit from use of the program, the extent that the ‘dose’ varies between participants, and participant characteristics that may influence the ‘dose’ that is needed [18].

Participants differ in online usage patterns, with evidence suggesting that less time will be spent on the program than researchers expect [19]. Program usage statistics automatically recorded onsite (e.g. number of pages viewed, number of tasks completed, timestamps, etc.) are an essential measure of adherence and engagement, providing an estimate of ‘dose’ received. Study investigators need to identify program usage statistics of interest during the development stage in order to communicate this to the website developer (who will incorporate selected variables into data downloads for later analysis). Nonetheless, adherence (and the related construct of engagement) is difficult to characterise and measure accurately— for instance, the proportion of time spent on a particular page does not necessary represent the time the participant was actively engaged on that page (they may have been chatting on Facebook or away from their computer). In addition to automatically capturing usage statistics via the website, ORBIT project participants are asked about their usage (online and ‘offline’ practice of skills) and perceived level of engagement with the content.

Program content is released to each participant sequentially each week in an attempt to pace users as they work their way through the program, whilst gradually building on knowledge from earlier weeks. An open approach to navigation within each week’s content invites a further challenge - the program is essentially a ‘set of offerings’ rather than ‘sessions’ or ‘modules’ to be completed, catering where possible for different users (e.g. those with no experience of mindfulness vs. regular meditators; those who have limited time to spend on the program). Unlike manualised treatment programs adapted for online format, one cannot assume that participants will work their way through each week’s content in a sequential manner. This required careful consideration during ORBIT content development, with persuasive technologies (e.g. links and ‘suggestions’ embedded within the content) used to prompt participants on how they might best navigate their way through the program, ‘chunking’ of material to allow for shorter sessions times depending on user preferences, and suggestions for skills practice peppered throughout the content in case users did not click through to the ‘homework’ page located at the end of each week’s content. Topic areas were crafted in a largely self-contained way: for example, using mindfulness (ranging from beginners exercises to more advanced practices) as a guiding overall skill to integrate topics.

(Insert Figure 2 about here)
2.2.3 Consumer involvement

Consumers (referred to as ‘superusers’) with lived experience of BD were employed for the ORBIT project and trained to assist with seeding forum content and facilitate engagement with the content. This strategy brings unique opportunities and challenges. While a rich and lively forum community has developed and participants appreciate and benefit from communication with peers, guiding principles have been developed to manage the ethical and scientific impact of this dynamic environment. The superuser role is defined as non-therapeutic and a degree of self-disclosure is encouraged. The forum is moderated by the project manager, and inappropriate content is ‘flagged’ (both in terms of risk and potential for triggering other participants). From a scientific perspective, superusers are instructed to seed forum content with messages that are specific to the program being offered (e.g. mindfulness-related material), avoiding (where possible) cross-contamination with content from the control condition (psychoeducation). Monthly supervision of superusers is undertaken to ensure that these guiding principles are adhered to, while balancing the tension of allowing the forums to organically unfold as part of a dynamic online community.

2.3 Ethical framework
Remote delivery considerations associated with web-based self-management programs include risk-management, participant distress and legal issues around delivering interventions in different jurisdictions.

2.3.1 Risk-management

Delivering an adjunctive online self-management program for BD within the context of an international research trial brings a level of risk that requires clear protocols should adverse events arise. Real-time intervention is not always possible or feasible given users are online during different time zones, and its use must be carefully considered.

Motivated by clinical risk-management priorities, as well as principles around generalisation of learning through participation, an approach was developed which emphasises the participants' local networks of treatment and care. Specifically, our approach was to explicitly devolve safety and well-being to the participant and their local network (treating mental health practitioner and local emergency services). This is achieved in three key ways. First, an inclusion criterion requires participants to have had contact with a mental health professional during the past 12 months, to provide these details to the project team, agree for this professional to be contacted if necessary, and understand that they remain the first point of contact. Mental health professionals are posted a courtesy letter informing them of their client’s participation in the ORBIT project. Second, participants are explicitly made aware (via the consent form, during the sign-up process when speaking to the research team, information on the program websites, coach messages, forum messages from superusers) that the program is not intended to replace their usual care, does not provided a crisis service and is not monitored in real-time. Links to emergency resources are nonetheless provided on the program websites (e.g. unsuicide.wikispaces.com). Participants are directed back to their mental health professional as needed throughout their involvement in the ORBIT project. Third, a ‘red flag’ protocol was developed to guide risk procedures, based on our experience with other online interventions and websites for BD [20-25] and consultation with the CREST.BD Community Advisory Group. This is detailed in the protocol paper [9]. In essence, the decision tree distinguishes between red flag information (which can arise during research assessments, online questionnaires, forum posts, messages to coach) suggesting immediate risk of harm for which real-time intervention is feasible/recommended (e.g., when active suicidality is identified during a phone assessment), and when it is not (e.g., when the research team becomes aware of active suicidality mentioned in a forum post from 48 hours previous). Actions are progressively escalated to senior staff members if required. All trial staff are comprehensively trained on these protocol procedures, operating to the guiding principle that the participant’s local treatment and care networks are not disrupted. As per standard ethical guidelines, participants are withdrawn from the ORBIT project on a case-by-case basis should it be deemed that their wellbeing is compromised by their participation, and serious adverse events suspected or known to be related to participation in the trial are
reported to the local administering ethics committee (Swinburne University of Technology Human Research Ethics Committee).

2.3.2 Participant distress

Related to risk management, participant distress (whether arising as a direct result of participation in the project, or as part of the usual clinical course of the mental health condition) is an ongoing challenge and particularly so for remotely delivered interventions. As for the majority of RCTs (whether online or face-to-face), the ORBIT project includes a structured diagnostic interview, the M.I.N.I. International Neuropsychiatric Interview (MINI) [26] to assess inclusion/exclusion criteria. Structured diagnostic interviews are, by their very nature, highly detailed and require participants to re-visit their experiences of distressing symptoms. When conducted face-to-face, interviewers are able to pay attention to non-verbal cues and can manage distress levels sensitively. This poses a particular challenge for interviews conducted over the phone, as for the ORBIT project. Distress associated with participation in the diagnostic interview has been flagged by consumers participating in training for research staff administering the MINI, as well as a small proportion of ORBIT project participants. The detailed nature and duration of the baseline interview (lasting up to two hours), particularly for those who have experienced multiple mood episodes. Solutions to date have included warning participants up-front of the potential for distress arising, interviewers being trained to tune in to participant tone of voice and other verbal cues, offering frequent breaks during the interview and conducting the interview across a few sessions if needed. While structured diagnostic interviews are a standard component of mental health research, sensitivity to participant distress and burden (particularly for those with chronic disorders such as BD) is a key priority. Offering participants the opportunity to de-brief following such interviews may be an additional solution for future studies in this space.

2.3.3 Legal issues

A key issue currently facing delivery of web-based ‘interventions’ for mental health concerns the type of intervention that is offered. Interventions claiming to have some therapeutic value (e.g. psychological interventions) fall into a grey legal zone, whereby certain jurisdictions require the ‘therapist’ providing the ‘intervention’ to be registered in the state, territory or country where the client accesses the service from. Indeed, some states could potentially prosecute the remote ‘therapist’ under the state’s laws. As clients can access web-based programs from any location world-wide, this present a legal minefield, particularly when programs have been developed by psychologists. As a first step to navigate this, the terminology used to describe the intervention must be carefully specified – for example, the ORBIT project does not claim to offer a psychological service, rather, a self-management program that complements (but does not replace) usual clinical care. Second, care should be taken in defining what the program is intended to offer – the ORBIT project indicates that improvements in quality of life may result from completing the program.
Third, as a guided program where participants have access to a personal coach, coach qualifications and role are made clear up-front. Specifically, the coaching role is non-therapeutic and their key aim is to support the participant in terms of their engagement with program content. The tone and content of coach messages are carefully crafted based on general guiding principles to standardise responses where possible (whilst remaining ‘human’), and coaches receive regular supervision. For example, responses tending towards therapeutic statements (e.g., advanced empathic insights) were discouraged on two grounds: 1) the asynchronous email communication cannot sustain such a dialogue, and 2) these could weaken participant’s engagement with their own local therapeutic resources. Finally, as a web-based program within the context of an RCT, we strategically positioned the ORBIT project as a ‘single site’ study, governed by a single Human Research Ethics Committee (in this case, Swinburne HREC), offering services delivered from Australia. Many of the legal issues associated with delivery of online interventions remain unknown at present, while university HRECs have not developed internal processes to deal with such issues.

3. Final comments: multi-faceted skill-set requirements

The study investigative team required a level of technological expertise in order to oversee the development, implementation and evaluation of an online self-management program. Expertise in this space can include knowledge of e-learning, e-communication, health informatics, basic programming skills, and awareness of technological barriers that could deter use (e.g., slow internet speed and ability to watch videos), with the overall aim of ensuring that the program is innovative, engaging, feasible and likely to be effective. As described by others [27], the ability of mental health researchers to enter the world of the online program developer invites valuable opportunities to influence scoping, design and evaluation. This offers a new skill set to mental health researchers – a new ‘breed of transdisciplinary experts’ [27] – allowing highly innovative and clinically effective e-mental health programs to be developed.

Project management of a multi-disciplinary team with this skill-set presents an additional challenge as team members may work off-site and program development nuances require careful tracking. To manage this, we adopted a web-based project management application (Trello; www.trello.com) to systematically track information needs and progress.

Unique skill-set considerations for the ORBIT project additionally included: (i) development of consumer videos to derive program content - identifying relevant topic areas and prompt questions for a documentary-style interview, sourcing and recruiting appropriate consumers (varied backgrounds, differing levels of psychological insight, engaging on film, etc.), and logistics associated with the filming process (equipment, location, post-production editing and transcribing, housing of video content), and ii) training of online coaches and superusers including awareness of online ‘etiquette’, deep knowledge of intervention content, managing user expectations and careful crafting of responses that balance support (without being
therapeutic) whilst continuously looking for opportunities to re-engage users with intervention content and skills-practice.

4. Discussion

Moving forward, the digital health space offers multiple opportunities. First, web-based self-management interventions such as ORBIT could be integrated into a stepped care approach in primary care [28]. Dissemination would occur via Primary Health networks: general practitioners are well-placed to identify patients who may benefit from an evidence-based low-intensity online intervention as a first step. Stepping up or down the treatment pathway would then be determined according to patient needs and response to treatment. Second, hybrid treatments, where mental health practitioners and patients use web-based programs in conjunction with face-to-face treatments (e.g. within sessions together, or as a way of stimulating discussions and promoting continuity of treatment outside of the treatment room), may provide alternative (or complimentary) models of care. Practitioners and their patients with serious mental illness have expressed positive views about this model [29], which is currently under evaluation [30]. Third, moderated discussion forums such as those included in ORBIT may serve as stand-alone interventions: these empowered online communities provide a rich, dynamic environment where consumers can exchange mental health information and receive support [31]. The peer discussion boards of the MoodSwings 2.0 online self-help program for BD are currently being evaluated in order to clarify and maximise the benefits of online discussion [32].

While clear opportunities exist in the digital health space, key challenges remain in terms of delivery and adherence. Legalities surrounding web-based delivery of mental health interventions across different jurisdictions requires urgent attention. Currently, university ethical review boards are either unaware of, or not resourced to address legal issues arising from geographic jurisdictions other than their own [25]. In order for review boards to undertake appropriate vetting of clinical trials of web-based interventions, clear identification of protective factors (e.g. participant privacy and safety, ethical considerations, risk issues) across jurisdictions is necessary. Transparent models for multi-national internet intervention research initiatives are now needed to navigate these legalities. One component of such a model may include clearly informing participants in consenting documents that while their participation has been ethically vetted by only one institution in a given geographic and legal jurisdiction, they remain bound by legal and ethical precedents in their own geographical jurisdiction [25].

Turning to adherence with web-based interventions, attrition is an ongoing challenge. Unlike face-to-face treatment trials where the common factors (i.e. therapeutic relationship) can bolster adherence to the control condition, web-based treatments (particularly those without guided support) pose different challenges. Research trial investigators must now make the choice to address attrition by making the engagement features of the control condition comparable to those of the preferred condition. The intriguing notion of the
‘therapeutic relationship’ in non-guided web-based interventions requires further exploration both in terms of attrition and treatment outcomes [33].

The present discussion of insights around developing and testing a novel online intervention for bipolar disorder was organised in terms of three nested foci: the intervention, the science, and the ethical framework (Figure 1). We propose that this organising scheme is useful for future efforts in this space, particularly because it helps illuminate tensions between these three critical goals of any eTherapy project. The ORBIT project required decisions about, for example: (a) the scientific preference to offer a standard ‘no frills’ control condition, versus the intervention-level need to have best practice engagement in the control condition, (b) the scientific preference to make findings as generalizable as possible, versus the ethical need to constrain participation to minimise risk of adverse events, and (c) the preference to have relatively unconstrained discussion on the forums to optimise impact of the interventions, versus the scientific goal of stimulus control and the ethical goal of minimising triggering statements for other participants. The ultimate development/testing of any online intervention rests heavily on the contextualised, procedural positions taken on these multifaceted issues, reminding us again of the significant gap between the simple content of any psychological intervention and its instantiation in an online delivery platform.

5. Conclusion

Technology allows for highly interactive and engaging programs that empower participants to manage their mental health. This departure from the care model can prompt clinician insecurity (treatments that work are arguably provocative and therefore potentially destabilising), however should not be a barrier to offering the intervention to consumers. As overviewed by others [12, 15], there is evidence that self-management is effective in bipolar disorder, with those on the more severe end of the spectrum still able to learn to self-manage and take control of their lives. While there are challenges to be aware of, guided self-management programs such as those offered by the ORBIT project that are specifically developed for online delivery provide highly accessible, engaging and potentially provocative treatments for chronically ill populations who may otherwise have never engaged with treatment. Key questions about engagement, effectiveness, and cost-effectiveness will be answered by the ORBIT project over the next 18 months.
References


