

Guided CBT Internet Interventions: Specific Issues in Supporting Clients with Depression, Anxiety and Co-morbid Conditions

Judy Proudfoot¹, Britt Klein², Gerhard Andersson³, Per Carlbring⁴, Mike Kyrios⁵, Calum Munro⁶, Sue Lauder⁷, Tonya Palermo⁸, Heleen Riper⁹, Matthijs Blankers¹⁰

¹ School of Psychiatry and Black Dog Institute, University of New South Wales, Australia.

² Faculty of Life and Social Sciences, Swinburne University, Australia

³ Department of Behavioural Sciences and Learning, Linköping University, Sweden

⁴ Department of Behavioural Sciences and Learning, Linköping University, Sweden.

⁵ Faculty of Life and Social Sciences, Swinburne University, Australia

⁶ Lothian Eating Disorders Services, Royal Edinburgh Hospital, Edinburgh, Scotland.

⁷ Department of Clinical and Biomedical Sciences, University of Melbourne

⁸ Department of Anesthesiology and Perioperative Medicine, Oregon Health & Science University, USA.

⁹ Innovation Centre of Mental Health & Technology, Trimbos Institute the Netherlands.

¹⁰ Amsterdam Institute for Addiction Research (AIAR), Academic Medical Center, University of Amsterdam, The Netherlands.

Introduction

Internet-based CBT provides effective treatment for people with mental health conditions, particularly when the Internet intervention is accompanied by brief support from a health professional or para-professional (e.g. Gellatly et al. 2007, Spek et al, 2007). In supporting internet programs, however, there is a need to supplement standard guidance procedures with a consideration of particular issues for different client groups, in order to maximise effectiveness and safety.

In this chapter, we outline the specific challenges that may occur when providing support to clients with different conditions who use Internet-based CBT programs. We offer practical suggestions and potential solutions for LI Practitioners in their provision of support to those clients with mood and anxiety disorders who are the prime focus of this book, and to clients with conditions which are commonly co-morbid with mood and anxiety disorders: bulimia nervosa (BN) and related disorders, alcohol problems and health-related conditions. The chapter concludes with a summary of issues that are common across all conditions.

Providing Internet Intervention Support to Clients with:

1. Depression

Challenges and Issues

Safety: Safety considerations are important when supporting the use of any Internet intervention, but even more so with clients who are depressed. Major depressive disorder is associated with increased risk of suicidality and self-harm. Comorbidity is also high and associated with slower recovery, increased rates of recurrence, greater psychosocial disability, and increased suicidality.

Motivation deficits and concentration problems – During periods of depressed mood, users may lack motivation or concentration to engage with or persist with an online treatment program. Non-completion of homework is also common.

Depressed clients often attribute *relapses* (even those of a minor nature) to internal, global and permanent causes, such as personal characterological shortcomings, which increase their feelings of hopelessness and undermine their willingness to persist with the program.

Potential Solutions

Safety: Regular monitoring of clients' depression symptoms and suicidal ideation is essential. It is recommended that procedures to be followed in the case of 'red alert situations' are set up within the service and communicated in advance to each client, as well as the contact details for other emergency services. Patients' personal contact details should also be collected at the outset. If a deterioration is noted in a client's depression symptoms, and/or the presence of any suicidality or self-harm, LI Practitioners are advised to take immediate action in line with local protocols to ensure the client receives help.

Motivation deficits and concentration problems: LI Practitioners can monitor the rate at which material is presented in the online program and encourage the client to take small steps, with appropriate homework to reinforce and consolidate learning and behaviour change. It is important to discuss the homework tasks with clients in advance to assist them to develop strategies to manage foreseeable obstacles, and afterwards to review how the homework went. The use of memory aides, such as printouts, has also been shown to help clients with depression.

Relapses: As part of the relapse prevention component of the intervention, LI Practitioners can discuss with clients the meaning they place on relapse and assist them to attribute any relapses they may experience during the program in a helpful way. This work can also be used to help the client prepare for potential relapses after the completion of the program (Proudfoot 2004).

2. Bipolar Disorder

Bipolar disorder is a chronic disorder characterised by extremes of mood. While the disease is generally conceptualised as episodic, high levels of sub-syndromal symptoms between episodes are common (Keller et al. 1992).

Challenges and Issues

Mood variations: At times of mood elevation, the client may be more goal-driven, have more energy and, for example, want to complete the whole program in one night. Times of increased irritability also mean that user difficulties with the program will not be well received. This can mean some clients may quickly leave a program – or others may incorrectly attribute their inability to progress as being a result of their personal or technical inadequacies. During periods of depressed mood, users may lack motivation or concentration to carry on with the program. At times of mood instability, clients can become very distressed, with feelings of hopelessness and isolation. LI Practitioners need to be cognisant of the high suicide rates for people with bipolar disorder.

Medication side effects: Medication, particularly mood stabilizers, forms the major treatment approach; however, difficulties associated with use include blurred vision, memory impairment and cognitive blunting. These side effects usually pass with time but need to be considered in the use of any online intervention.

Potential solutions

Mood variations: Having a process of stepping through each module – where this is either via a set period of time, or controlled by the LI Practitioner - prevents a program unwittingly

adding further stimulation and allows the opportunity for the person to complete the intervention in a more meaningful way.

LI Practitioners can minimise frustration in their clients by thoroughly checking the internet intervention in advance, having an easy to find 'help' button, and ensuring prompt response to any user problems. Messages should be written with care, as the standard impersonalised messages can be confronting for some clients with bipolar disorder.

LI Practitioners also need to have processes in place for dealing with clients who are significantly distressed and potentially suicidal. Clients should be informed of these processes in advance.

Impact of medications: As medication can have an impact on memory, the LI Practitioner should encourage clients to print out pages from the online program for reminders and future reference.

Each person experiences bipolar disorder in a slightly different way and this is reflected in the variability of tools and strategies that people have reported finding useful. It is important, therefore, for LI Practitioners to ensure that a range of tools and strategies are provided so that clients can find something relevant for them.

3. Social Anxiety Disorder, Generalised Anxiety Disorder, Panic Disorder with or without Agoraphobia

Challenges and Issues

Comorbidity and safety: Many clients with anxiety disorders concurrently suffer from other anxiety disorders and/or mood disorders. It may also be typical for LI Practitioners to see clients with comorbid anxiety and somatic conditions such as headache, stomach pain, back pain (Taylor 2008). In addition, some clients may have comorbid personality disorders, for example, clients with generalised social anxiety disorder may also have avoidant personality disorder. Comorbidity requires attention to *safety issues*, as clients with severe anxiety disorders have an increased risk of suicide. Clients with Panic Disorder with agoraphobia (PD/A) are often more difficult to engage than those just with Panic Disorder (PD). Clients with co-morbid secondary conditions (especially depression, Post Traumatic Stress Disorder) are also more challenging.

Completion of therapy tasks: In both face-to-face and internet-delivered CBT, some therapy tasks can be difficult for clients to carry out unless support or guidance is received. For example, in many evidence-based internet programmes, live exposure is strongly recommended, yet carrying out exposure sessions can be confronting for clients.

Compliance: A proportion of people who commence a computer-based course of treatment either do not adhere to the program or drop out before any benefits can be gained (see also Cavanagh, ch.xx).

Potential Solutions

Safety: While clinicians and researchers may handle safety issues differently, it is mandatory for all LI Practitioners to secure ways to contact severely ill clients and lead them to regular health services. An alternative route is to exclude clients with more substantial problems from participating in the program, but that runs the risk denying them a treatment that could work. The exception is clients with suicidal ideation or whose primary problem is not the anxiety disorder for which the internet treatment programme is targeted – for safety reasons; it is recommended that they are excluded.

Completion of therapy tasks: Ensure that clients complete their self monitoring forms and include weekly discussions about them. Discuss with the clients their attempts to master the appropriate treatment techniques. For example, many PD/A clients report that mastery of breathing control enhances engagement and adherence with the online program. Discuss the client's fears around interoceptive and in vivo exposure exercises and dispel any myths. Work collaboratively with the client to choose which exposure exercises to target, especially when clients will be undertaking these activities alone. Wherever possible, enlist direct support from a significant other as this can be enormously beneficial. Although multiple studies (e.g., Klein et al. 2006) have demonstrated that the exposure modules were the least liked by clients, they were considered to be the most valuable by therapists and participants in terms of treatment success.

Compliance: Current research suggests that client compliance can be fostered by complementing the Internet treatment program with guidance and support from a professional or paraprofessional. A telephone call or email feedback on homework assignments has been shown to increase compliance, and a good therapeutic alliance appears to develop in online contact (Andersson et al. 2008).

4. Post traumatic stress disorder (PTSD)

Challenges and Issues

Complexity of the condition: PTSD is one of the more complex anxiety disorder types to treat remotely and it is imperative that the LI Practitioner has a comprehensive and thorough understanding of the condition before they commence low intensity treatment with a client.

Comorbidity is also high in PTSD, for example substance or alcohol misuse.

Potential Solutions

Complexity of the condition: The development and maintenance of a strong therapeutic alliance and trusting relationship between the LI practitioner and the client with is essential. For clients being supported by email, this may require lengthier and more carefully scripted emails to the PTSD client, especially for those who have experienced repeated/prolonged trauma. A recent pilot trial (Klein et al. 2009) found that developing a strong therapeutic alliance via remote communication is certainly possible.

Developing a strong therapeutic alliance is also crucial for treatment engagement and adherence, as support is necessary to help clients cope with the more challenging aspects of treatment (such as exposure exercises). It is important that the LI Practitioner pay particular attention when asking clients to implement imaginal and in vivo exposure therapy exercises. Given that avoiding rather than confronting memories is common in PTSD, writing therapy appears to be a more palatable method for online clients to habituate to the memories of trauma, rather than the imaginal and in vivo exposure exercises commonly used in face-to-face settings. Furthermore, writing therapy may also help clients to cognitively reappraise and challenge their thoughts (Klein et al. 2009). However, it is important to note that in the UK IAPT model clients presenting with PTSD are automatically stepped up to traditional face to face care as there is currently a paucity of evidence available regarding the effectiveness of LI interventions for PTSD.

Comorbidity: Coping with PTSD symptoms via substances or alcohol will greatly interfere with treatment learning, adherence and success. Depending on the level of substance usage, it may require a discontinuation of PTSD online treatment so that substance or alcohol issues can be managed.

The LI Practitioner must remain constantly vigilant to changes in mood and distress and act swiftly should self-harm, especially suicidality become evident. Depending on the level of risk, anything from a telephone call to immediate and direct assistance involving the client's doctor or the nearest mental health crisis management team is vital.

5. Obsessive compulsive disorder (OCD)

Challenges and Issues

Complexity of the condition: OCD is a complex and heterogeneous disorder with a wide range of overt and covert symptoms, including unwanted intrusions (e.g., thoughts, images, urges), compulsions experienced as uncontrollable, anxiety, and avoidance of situations where threat is overestimated or nonexistent. Furthermore, OCD is associated with high degrees of comorbidity, including depression, which complicates individuals' capacity to undertake treatment requirements. In addition, many clients with OCD have been prescribed pharmacological treatments for their OCD and comorbid conditions.

Compliance: Treatment requirements for clients with OCD are substantial and, therefore, dropout can be a significant problem; however, compliance is necessary for positive gains (Kyrios 2003). Requirements in the psychological treatment of OCD include: establishing and progressing through a graded list of unwanted intrusions or threatening situations; reducing avoidance and diminishing compulsions or other forms of neutralisation such as reassurance seeking; maintaining homework tasks at a sustainable pace; planning and dealing with relapse; increasing acceptance and normalisation of the experience of unwanted intrusions; and attaining a sense of self that is confident, integrated, and flexible.

Potential Solutions

Complexity of the condition: As particular OCD subtypes or symptoms respond better to specific interventions, LI Practitioners need to take an evidence-based approach and encourage clients to undertake the most appropriate treatment (e.g., exposure for avoidance, response prevention for compulsions, cognitive therapy for obsessions, relaxation for anxiety). LI Practitioners will also need to be aware of common complications and issues associated with the pharmacological management of OCD.

Compliance: With Internet treatments, LI Practitioners need to provide support to enhance engagement, normalisation, skills provision, and self integration, as well as maintain an empathic stance without offering or responding to clients' need for reassurance. Encouragement of self-monitoring is useful, as is utilizing significant others to maintain sense of ongoing support.

LI Practitioners will often need to help clients develop detailed exposure hierarchies where avoidance and compulsions are undermined in a graded manner. Subtle forms of avoidance and compulsions often need to be highlighted if anxiety reduction does not ensue despite repeated exposure.

In the case of clients with obsessional personality tendencies, LI Practitioners will need to discourage perfectionism, restrain the frequency of their written communication, and encourage a realistic pace of progress.

Finally, where treatment is complicated by significant depression, poor insight, and a lack of progress, LI Practitioners should encourage referral to an expert professional; however, such encouragement needs to help clients maintain a sense of optimism, self-efficacy, and awareness of gains already made.

6. Bulimia Nervosa (BN) and Related Disorders

Challenges and Issues

Safety: *Safety is* always an important issue for internet based interventions. However few BN clients are likely to be unsuitable on the grounds of safety, unless they have one or more of the following: a BMI <17.5; co-morbid PTSD, severe depression, or a psychotic illness.

Engagement and retention: People with eating disorders can be difficult to engage in conventional therapy as shame and secrecy are central to the disorders. In addition, mood fluctuation often goes hand-in-hand with the binge-purge cycle and more disorganised lifestyles.

Potential solutions

Safety: Adequate screening procedures are required. Contact details including mobile phone numbers and e-mail addresses are essential, to be able to contact clients if concerns arise.

Engagement and retention: Flexibility is key. A balance is struck between respecting a desire for distance and anonymity, and developing a 'good enough' therapeutic relationship. A 'mental picture' of the support person – tone of voice, turn of phrase, appearance – and a sense that they are interested and care, are likely to be important.

Tips for trying to achieve this:

- Encourage one or two face-to-face meetings.
- But offer the option of treatment with no face-to-face contact.
- Send introductory information with a picture of support person.

Get a sense of the client's life to use in the later support work. Use an empathic, chatty, supportive and encouraging approach. *Example:* "Wow you've done so well! Huge reductions in your bingeing and vomiting since last session – that's great". Duration should be flexible too, acknowledging the often slightly disorganised lifestyles of this population, yet maintaining sufficient momentum. A reasonable rule of thumb is to expect therapy and support to last twice as long as the number of online sessions. So encourage the completion of a weekly session but accept that fortnightly may be more realistic for some.

Other tips:

- Troubleshoot for barriers to internet use at the outset.
- Help establish a plan for weekly sessions at the outset: where and when.
- Keep a clinical record of e-mail/telephone/text contact to refer to at each new contact.
- Check progress through sessions and any on-line symptom scores completed so that you can give accurate and empathic feedback on progress.

7. Health-related conditions

Internet interventions have been developed for children and adults with a variety of health-related conditions such as obesity, encopresis (Ritterband et al. 2003), recurrent and chronic pain (Buhrman et al. 2004, Long & Palermo 2008), asthma, diabetes, and traumatic brain injury (Wade et al. 2006). The focus of such interventions is on changing behaviors and thoughts that may play a role in symptom expression as well as to teach specific skills that can be used to help monitor, manage, and modify symptoms related to the health condition. Clients are typically receiving ongoing medical care for their health condition, in addition to the adjunctive internet-based treatment.

Challenges and Issues

Singular focus on a specific health issue: Internet-based systems are often designed to focus on a single problem such as chronic pain. However, individuals with chronic health conditions are at higher risk for comorbid mental health symptoms and thus, the inability to detect or treat additional problems such as depression that arise or become apparent during the course of treatment can be challenging.

Including significant others: For the treatment of certain health conditions, a broader systems perspective can be useful in order to include the client as well as significant others (e.g., parents, carers) who are involved in the care of the child or adult with the health condition.

Potential solutions

Singular focus on a specific health issue: Some interventions for health conditions incorporate screening for mental health symptoms during treatment. For example, when progress has not been made toward treatment goals, the presence of mental health symptoms may be one of the discussion points raised with the client along with treatment recommendations. If significant mental health problems become apparent during the course of treatment, the client may be better helped with therapy for these problems.

Including caregivers: Delivery of treatment can be accomplished through using separate log in and passwords to take caregivers to separate intervention content or by having caregivers access the site together with the client and work through material. These details need to be determined upfront and tested in the specific client group to ensure feasibility and acceptability of incorporating caregivers into treatment. Young people, for example, are likely to want more independence and autonomy in treatment.

8. Alcohol, tobacco and other drug use (ATOD) disorders

Challenges & issues

Complexity of the condition: Alcohol, Tobacco and Other Drug (ATOD) use disorders are multi-faceted in nature, highly prevalent and lead to considerable disease burden.

Access/Compliance: Among alcohol and other drug users specifically, the availability and uptake of generic and specialised services is low. These populations experience a high threshold to contact services, attributable to fears of stigmatisation, loss of privacy or problems with work or family, as well as to low motivation for behaviour change. Service providers are often unaware of early detection and appropriate diagnosis/screening strategies, or unwilling to implement them. The majority of alcohol and other drug abusers remain thus unidentified and with unmet treatment needs, while at the same time facing the risk of being penalised for their illegal substance use behaviour for an extended period of time in a number of countries, but not all.

Potential Solutions

Complexity of the condition: Providing easy access to ATOD abuse interventions and reducing geographical distances to treatment services is known to facilitate positive treatment outcomes, as well as additional help-seeking behaviours. Online services (such as online psycho-education and self help treatment without guidance, based upon self-referral) for ATOD abusers may function as a first step in a stepped care approach to treating substance abuse. Many people with substance use problems perceive a higher level of anonymity in online treatment compared to face to face treatment. Meanwhile it may also lower the threshold to face-to-face treatment when a more intensive treatment is required (Riper et al. 2008, 2009).

Access/Compliance: Benefits of web-based interventions for (hidden) ATOD abusers can also be identified in terms of service delivery. User centeredness, acceptability and attractiveness of online interventions will lead to larger proportions of the target population actually receiving some form of formal treatment – while at the same time reducing drop-out.

Easy data storage enables a high level of treatment transparency for LI Practitioners, clients and supervisors in supporting treatment adherence for both pharmacological and psychosocial interventions and increased quality of professional performance. This feature also enables systematic monitoring and intervention. It may be considered for persons who are on a waiting list for more intensive treatments or as an adjunct to increase the effectiveness of primary or specialised treatments.

Conclusion

The sections above outline issues that LI Practitioners are advised to keep in mind when supporting clients with particular conditions in their use of specific Internet interventions. Suggestions are provided for ways to meet the challenges and to ensure that best practice is provided.

There are also a number of common issues across all conditions that LI Practitioners are advised to consider when supporting clients in their use of Internet interventions. These include :

- Safety issues – checking for suicidality.
- Assisting client engagement and maintaining adherence.
- Encouraging self-monitoring.
- Attention to non-specific factors such as therapeutic alliance and hopefulness for improvement.
- Using significant others.

Take Home Messages

- This chapter summarises some of the key challenges and solutions in providing internet-based interventions for clients with depression and anxiety disorders and related conditions.
- While many issues are specific to particular physical and mental health conditions, a number of issues are common across conditions. Among the key issues are ways to enhance engagement and adherence to the online intervention.
- Safety is always paramount in the use of Internet interventions with any client group. Regular client monitoring along with robust emergency procedures are mandatory.

References

- Andersson, G., Bergström, J., Buhrman, M., Carlbring, P., Holländare, F., Kaldö, V., et al. (2008). Development of a new approach to guided self-help via the Internet. The Swedish experience. *Journal of Technology in Human Services* 26, 161-181.
- Buhrman, M., Faltenhag, S., Strom, L. and Andersson, G. (2004). Controlled trial of Internet-based treatment with telephone support for chronic back pain. *Pain*, 111, 368-77.
- Cuijpers, P., van Straten, A. and Andersson, G. (2008). Internet-administered cognitive behavior therapy for health problems: A systematic review. *Journal of Behavioral Medicine*, 31, 169-177.
- Gellatly, J., Bower, P., Hennessy, S., Richards, D., Gilbody, S., Lovell, K. (2007). What makes self-help interventions effective in the management of depressive symptoms? Meta-analysis and meta-regression. *Psychological Medicine* 37, 1217-1228.
- Keller, M.B., Lavori, P.W., Kane, J.M., et al. (1992). Subsyndromal symptoms in bipolar disorder: a comparison of standard and low serum levels of lithium. *Archives of General Psychiatry*, 49, 372-376.
- Klein, B., Mitchell, J., Gilson, K., et al. (2009). A therapist-assisted internet-based CBT intervention for post-traumatic stress disorder: Preliminary results. *Cognitive Behaviour Therapy*, 38, 121-31.
- Klein, B., Richards, J.C., and Austin, D.W. (2006). Efficacy of internet therapy for panic disorder. *Journal of Behavior Therapy and Experimental Psychiatry*, 37, 213-38.
- Kyrios, M. (2003) Exposure and response prevention in the treatment of Obsessive–Compulsive Disorder. In R. Menzies & P. de Silva (Eds.). *Obsessive-Compulsive Disorder: Theory, Research and Treatment*, pp.259 – 274. Chichester: Wiley..
- Palermo, T. M., Wilson, A. C., Peters, M., Lewandowski, A., & Somhegyi, H. (in press). Randomized controlled trial of an Internet-delivered family cognitive-behavioral therapy intervention for children and adolescents with chronic pain. *Pain*. 2009 Aug 18. [Epub ahead of print]
- Proudfoot, J. (2004). Computer-based treatment for anxiety and depression: Is it feasible? Is it effective? *Neuroscience & Biobehavioral Review*, 28, 353-363.
- Riper, H., Kramer, J., Smit, F., Conijn, B., Schippers, G., Cuijpers, P. (2008). Web-based self-help for problem drinkers: a pragmatic randomized trial. *Addiction*. 103, 218-27.
- Riper, H., van Straten, A., Keuken, M., Smit, F., Schippers, G., Cuijpers, P. (2009). Curbing problem drinking with personalized-feedback interventions: a meta-analysis. *American Journal of Preventive Medicine*. 36, 247-55.
- Ritterband, L. M., Cox, D. J., Walker, L. S., et al. (2003). An Internet intervention as adjunctive therapy for pediatric encopresis. *Journal of Consulting and Clinical Psychology*, 71, 910-7.
- Spek, V., Cuijpers, P., Nyklicek, I., Riper, H., Keyzer, J., Pop, V. (2007). Internet-based cognitive behaviour therapy for symptoms of depression and anxiety: a meta-analysis. *Psychological Medicine*, 37, 319-328.
- Stinson, J. N., Wilson, R., Gill, N., Yamada, J. and Holt, J. (in press). A systematic review of internet-based self management interventions for youth with health conditions. *Journal of Pediatric Psychology*.
- Taylor, S. (2000). *Understanding and treating panic disorder. Cognitive-behavioral approaches*. Chichester: Wiley.
- Wade, S. L., Carey, J. and Wolfe, C. R. (2006). An online family intervention to reduce parental distress following pediatric brain injury. *Journal of Consulting and Clinical Psychology*, 74, 445-54.