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Facilitating and hindering factors in Internet-delivered treatment for insomnia and depression☆,☆☆

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ABSTRACT

Insomnia and depression is a common and debilitating comorbidity, and treatment is usually given mainly for depression. Guided Internet-based cognitive behavioral therapy for insomnia (ICBT-i) was, in a recent study on which this report is based, found superior to a treatment for depression (ICBT-d) for this patient group, but many patients did not reach remission.

Aims: To identify facilitating and hindering factors for patients in ICBT-i and ICBT-d and formulate hypotheses for future research.

Method: Qualitative telephone interviews at the time of the 6-month follow-up. Thirty-five interviews were done and analyzed with a grounded theory approach. Based on the qualitative results, an iterative method-triangulation including quantitative and semi-qualitative was performed.

Results: The interviews were coded into 738 sentences, condensed into 47 categories and finally 11 themes. Four areas were investigated further with method triangulation: Opinions about treatment, adherence, hindering symptoms and acceptance. Patients in ICBT-i were more positive regarding the treatment than patients in ICBT-d. Using treatment components was positively associated with outcome in both groups. Symptoms of insomnia, depression and other comorbidities were perceived as more hindering for ICBT-d than for ICBT-i. Acceptance of diagnose-related problems as well as negative emotions and cognitions was positively associated with outcome for ICBT-i.

Proposed future research hypotheses: 1) A combination of CBT for insomnia and CBT for depression is more effective than only one of the treatments. 2) Additional therapist support increases outcomes for patients with more comorbidities. 3) Acceptance is a mechanism of change in CBT-i.

1. Introduction

Insomnia and major depression are probably the two most common psychiatric diagnoses, with a prevalence of around 10–20 and 5–8% respectively (Ohayon and Roth, 2003; Kim et al., 2000; Ford and Kamerow, 1989; Young et al., 2008; Wittchen and Jacobi, 2005). They both cause a lot of suffering for the individual and a great cost to society (Daley et al., 2009; Bijl and Ravelli, 2000). Insomnia is often more or less chronic if left untreated, and depression is likely to recur after the first episode (Burcusa and Iacono, 2007; Ford and Kamerow, 1989). Comorbidity between insomnia and depression is very common, with approximately two thirds of depressed patients also suffering from insomnia (Buysse et al., 2008; Soldatos, 1994).

The most common treatment for both conditions is medication. There are effective psychological treatments, though generally more difficult to come by. The psychotherapy form with the most convincing scientific evidence for mild to moderate depression is cognitive behavioral therapy (CBT) (Butler et al., 2006). For insomnia, CBT is considered the treatment of choice, and has shown long-term effects superior to that of sleep medication (Morin et al., 2006; Riemann and Perlis, 2009).

The most common approach to treating comorbid insomnia and depression is to treat the depression. Depression has historically often been seen as the cause of the sleeping problems, and treating depression is expected to improve sleep. Previous studies show, however, that insomnia often precedes depression (Walsh, 2004), and that untreated insomnia increases the risk of relapse into depression (Perlis et al., 1997). In a previous randomized controlled trial (RCT) (Blom et al., 2015a) of guided Internet-based cognitive behavioral therapy (ICBT), we found that ICBT for insomnia (ICBT-i) was more effective than CBT for depression (ICBT-d) for this patient group, but also that

☆ Setting for study: Internet Psychiatry Clinic, Stockholm, Sweden.
☆☆ Trial registration: The trial was registered, together with a parallel trial, at Clinicaltrials.gov as "Internet-CBT for Insomnia" registration ID: NCT01256099.

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patients with comorbid insomnia and depression did not improve as much as expected, when compared to patients with one of the diagnoses (Hedman et al., 2013; Jernelöv et al., 2012; Blom et al., 2015b). This sample seemed to be more burdened than patients with one of the diagnoses.

In order to understand more about how to improve the treatment, we wanted to formulate testable hypotheses regarding facilitating and hindering factors for these patients in their work with ICBT, and we decided to do this in a qualitative study, based on the previous RCT (Blom et al., 2015a) with the possibility to use available quantitative data to shed further light on qualitative findings.

Previous qualitative studies examining randomized clinical trials of psychotherapy are few, and those that exist take different views and perspectives. A recently published review examined qualitative studies of insomnia and the current state of knowledge (Araújo et al., 2016). This review looks into the experience of insomnia and insomniacs' views on treatment. Among other things, they conclude that insomniacs are a frustrated group with insomnia affecting life 24/7. Insomniacs do not find that they are being fully understood by health care providers, who seem largely unaware of non-pharmacological treatment options.

There is an increasing amount of qualitative studies looking at ICBT. The Internet is a fairly new way of disseminating psychotherapy, and there is an urge to learn more about how and why it works. Some of the previous qualitative studies on ICBT look into motivators and motivations (Donkin and Glozier, 2012), expectations and experiences in primary care (Beattie et al., 2009) and therapist behaviors (Paxling et al., 2013; Holländare et al., 2016). A study on ICBT for depression (Bendelin et al., 2011) found that the process of change corresponded to theories of change in face-to-face therapy, and that patients who attribute success to themselves and take responsibility for their treatment benefit more. The report that is perhaps most relevant to our study is about patients' experience of helpfulness in ICBT for depression (Lillevoll et al., 2013), even though the therapist support in this study was face-to-face, making it more of a blended therapy. That study emphasizes active engagement of the patient, guidance from the therapist and the content of the treatment as the most helpful dimensions.

The aim of the present study was to investigate factors that hinder and facilitate the work with ICBT for insomnia or depression, for patients with both diagnoses, by means of qualitative telephone interviews and method triangulation using interview data, quantitative data and semi-qualitative clinical data from the Internet treatment platform. The findings were used to formulate research hypotheses that, if later evidenced, would help improve treatment for this patient group.

2. Method

This study was conducted in parallel with the 6-month follow-up of an RCT comparing guided Internet-delivered CBT for insomnia (ICBT-i) to guided Internet-delivered CBT for depression (ICBT-d) for participants diagnosed with both insomnia and major depression (Blom et al., 2015a). The RCT was registered at Clinicaltrials.gov, registration ID: NCT01256099 and was set at the Internet Psychiatry Clinic, Stockholm County public health, Sweden.

2.1. Description of the original RCT

2.1.1. Design

The design of the original study was a nine week randomized controlled trial with six-, twelve- and 36-month follow-up (the 36-month follow-up results have not yet been reported). Participants were 43 adults diagnosed with comorbid insomnia and depression, recruited via media and assessed by psychiatrists. The study was advertised as being directed at individuals with both insomnia and depression, and prior to consenting, participants were informed that they would be randomized to either treatment for insomnia or treatment for depression. Randomization was carried out by an independent person using www.random.org.

2.1.2. Outcome measures

Primary outcome measures were the symptom self-rating scales Insomnia Severity Index, ISI (Morin et al., 2011) and Montgomery Åsberg Depression Rating Scale MADRS-S (Svanborg and Åsberg, 1994), assessed before and after treatment with follow-up after 6, 12 and 36 months. The participants' use of sleep medication and need for further treatment after completion of ICBT were also investigated. Mean (SD) ISI-score pre-treatment was 19 (4) and mean (SD) MADRS-S score was 26 (6).

2.1.3. Interventions and support

Interventions were ICBT for either insomnia (ICBT-i) or depression (ICBT-d). The treatments were delivered on the same technical platform and accessed on a secure web site which only the participant and their therapist could access. The modules consisted of text to read, questions to answer on theory, behavioral change exercises, work sheets, and for the ICBT-i group a sleep diary. Participants were expected to complete on average one module per week. Each module ended with the participant sending in a home-work report via a secure messaging system. The therapist received the report, reviewed answers to homework questions, work sheets that were filled out and sleep diary (ICBT-i only), gave written feedback within 24 h on week days and finally gave the participant access to the next module. The participants also had the possibility to send messages with questions or comments to their therapist. Therapists were instructed not to give advice that was outside the scope of the manual. If the participants were inactive for one week, a mobile text message was sent by the therapist. If there still was no activity, a phone call was made, and if these attempts at contact failed for around three weeks, a letter was sent, encouraging the participant to make contact. The six therapists were final (fifth) year students of clinical psychology at master level, with at least 18 months of theoretical and practical supervised training in CBT, who were supervised by a licensed clinical psychologist with CBT and insomnia/depression treatment expertise.

The insomnia treatment consisted of standard CBT-i components in a manual previously tried in several trials (Blom et al., 2015b; Jernelöv et al., 2012; Kaldo et al., 2015a): psychoeducation about sleep and CBT-i, sleep hygiene, education on sleep medication and how to quit, sleep restriction and stimulus control, stress management and reappraisal of negative thoughts about sleep. The main focus during treatment was on sleep restriction and stimulus control.

The depression treatment was previously tried both in an RCT and regular care, where it is currently in use (Andersson et al., 2005; Hedman et al., 2013) and consisted of psychoeducation on depression and CBT, behavioral activation, cognitive reappraisal and coping strategies for handling anxiety and worry. The treatment and therapist support focused on behavioral activation and reappraisal of negative thoughts.

More information about the RCT can be found in the original article (Blom et al., 2015a).

2.2. Procedure

At the time of the 6-month assessment (FU6) of the RCT, all participants were contacted by phone and asked if they wanted to participate in an extended interview about the treatment. Thirty-seven of the 43 participants were reached and all agreed to participate. All 37 were interviewed but the recordings were lost due to technical problems for two of them, leaving data from 35 interviewed participants, 18 from ICBT-i and 17 from ICBT-d. Mean (SD) age at baseline was 48 (13) years and mean number of years with insomnia was 16 (SD 14). There were 51% females, 54% of patients used sleep medication and 37% used antidepressants in the two weeks prior to assessment.