



Experiences of internet-delivered and work-focused cognitive behavioral therapy for stress: A qualitative study



Robert Persson Asplund^{a,*}, Anna Jäderlind^d, Isabel Höijer Björk^d, Brjánn Ljótsson^b, Per Carlbring^c, Gerhard Andersson^{a,d}

^a Department of Behavioral Sciences and Learning, Linköping University, Sweden

^b Department of Clinical Neuroscience, Division of Psychology, Karolinska Institutet, Sweden

^c Department of Psychology, Stockholm University, Sweden

^d Department of Clinical Neuroscience, Section of Psychiatry, Karolinska Institutet, Sweden

ARTICLE INFO

Keywords:

Stress
Experiences
Internet
Cognitive behavior therapy
Work

ABSTRACT

Introduction: Stress is one of the major challenges of modern society, causing significant costs and personal problems. In the recent decade a growing body of research has provided support for the efficacy of internet interventions for stress. However, few studies have focused on how participants experience internet interventions for stress.

Method: The current study was a qualitative follow-up study of an internet-delivered and work-focused cognitive behavioral treatment for stress. The aim was to capture participants' experiences of the treatment and their views on effects on health and well-being. Participants were selected from a controlled study ($n = 27$), using a criterion-based sampling approach selecting those participants who had completed all treatment modules. Nine semi-structured interviews were held, and the material was analyzed using Thematic Analysis.

Results: The results indicated that most of the participants experienced positive effects on their mental health and well-being in both life and at work. All participants emphasized the importance of having access to therapist support. In line with previous research, participants found the intervention to be extensive and demanding and expressed the need for extended treatment time and therapist support.

Conclusions: Considering the limitations of the present study, future research could examine the feasibility of reducing the length of each session, extending deadlines and increasing therapist support. This could improve treatment efficacy and further enhance utilization in the target population.

1. Introduction

1.1. Theoretical background

Stress and mental health disorders constitute major challenges in today's society. This is especially the case within the working population. For example, every fourth employee has experienced stress during most of their working time (Eurofound, 2017). The Global Burden of Disease Survey estimated that mental disease, including stress-related disorders, will be the second leading cause of disabilities by the year 2020 (World Health Organization, 2008).

Prolonged exposure to stress may result in severe health implications, e.g. burnout, coronary artery disease, lowered immune functioning, cognitive disabilities and cellular ageing (Grossi et al., 2015; Kiecolt-Glaser et al., 2002; Kivimäki et al., 2006; Lindqvist et al., 2015).

Stress also contributes to the onset of many psychiatric disorders, such as anxiety, depression and insomnia (Åkerstedt, 2006; Melchior et al., 2007). In addition, it can result in impaired work functioning and problems in work participation, in the form of absenteeism and long-term sick leave (Joyce et al., 2016; Kessler et al., 2006; Sanderson and Andrews, 2006). Decreased work participation due to stress and common mental health disorders is problematic as it leads to large costs for society. This points out the need for further development, evaluation and implementation of interventions that improve health and wellbeing among employees (Arends et al., 2012).

Despite the well-known health implications of stress and the benefits of mental health interventions, access to treatment is still relatively limited (Chisholm et al., 2016; Goetzl et al., 2014; Hilton et al., 2008; Richardson and Rothstein, 2008). An effective way to increase this access is through internet-based treatment (Andersson et al., 2019).

* Corresponding author at: Department of Behavioral Sciences and Learning, Linköping University, 581 83 Linköping, Sweden.

E-mail address: robert.persson.asplund@liu.se (R.P. Asplund).

<https://doi.org/10.1016/j.invent.2019.100282>

Received 16 May 2019; Received in revised form 13 September 2019; Accepted 13 September 2019

Available online 28 October 2019

2214-7829/ © 2019 Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license

(<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

During the last two decades, a growing body of internet- and computer-based interventions has been developed to increase an individual's psychological resources and resilience to a wide range of mental disorders (Andersson et al., 2019), including stress (Heber et al., 2017). Results show that internet-based interventions for stress have both short- and long-term effects on mental health outcomes for a range of participants, including employees (Ebert et al., 2016; Ly et al., 2015; Persson Asplund et al., 2018; Zetterqvist et al., 2003).

Although the efficacy of internet-based interventions is well-established, we still have fairly limited knowledge of how participants experience internet-based interventions (Fleischmann et al., 2017; Halmetoja et al., 2014). Dimidjian and Hollon (2010) stated that both quantitative and qualitative methods should be used in psychological treatment research, and Bendelin et al. (2011) emphasized that qualitative research may help to identify the unique aspects of internet-based treatment.

Participants in previous qualitative studies have reported both positive and negative experiences of internet-based interventions. Positive statements concerning the availability, flexibility and anonymity of the intervention are common among participants (Alberts et al., 2018; Bendelin et al., 2011; Halmetoja et al., 2014; O'Mahen et al., 2015; Pugh et al., 2015). However, participants have suggested more individualized interventions and express the importance of customizing both feedback and therapist support (Gerhards et al., 2011; Ly et al., 2015; O'Mahen et al., 2015; Rozental et al., 2015b; Svartvatten et al., 2015). Furthermore, participants request more content-related therapist support, more background information and better understanding of their own situation (Macdonald et al., 2007; Gerhards et al., 2011). Regarding interventional feedback, participants expressed the importance of tailoring both the amount and the type of feedback to their individual needs (Svartvatten et al., 2015).

To our knowledge, no previous study has examined the experiences of internet-delivered treatment that focuses in both stress and the work situation. We have only found one previous study that has examined participants' experiences of internet-based treatment for stress. Fleischmann et al. (2017) evaluated an internet and app-based stress management intervention used among distressed college students. The students expressed the need for more individualized content, background information, content-related support and a better understanding of their situation. Aligned with previous research (Rozental et al., 2014), participants also described that session-length and frequency of reminders were demanding and constituted a possible stress factor. Internet-based treatments usually contain a large amount of information and instructions, which places high demands on cognitive and executive abilities. Current research suggests that cognitive disturbances are common in chronic stress disorders. For instance, Grossi et al. (2015) and Savic et al. (2017) reported changes in cortical and limbic volume, areas responsible for integration of emotional, cognitive and physiological responses. This corresponds to several of the symptoms that appear in chronic stress disorder. Therefore, experiences of high demands and stress caused by the intervention should be taken under special consideration in the development of internet interventions addressing distressed and exhausted individuals.

1.2. Aims

The main purpose of this study was to examine the experiences for participants in an internet-delivered and work-focused cognitive behavioral treatment for stress. As far as we know, no previous studies have examined participants' experiences in an internet-based intervention, addressing both mental health and the work situation. The study was a qualitative follow-up of a randomized controlled pilot trial (manuscript in preparation).

2. Method

2.1.1. Research trial

The present study was conducted as a follow-up to a randomized controlled pilot trial examining the efficacy of work-focused and internet-based cognitive behavioral treatment (iCBT) for stress, among employees. In the primary study, 54 participants were randomized to either a guided iCBT ($n = 27$) or a waitlist control group ($n = 27$) who received unguided self-help after three months. Assessments were conducted at baseline (T1), at post-treatment (T2, ten weeks after randomization) and at three-month follow up (T3). The present qualitative study was conducted after the three-month follow up.

2.1.2. Selection of participants

Twenty-four participants were selected from the treatment group of the original study ($n = 27$), using a criterion-based sampling approach. Participants who had completed all treatment modules and the three-month follow-up assessment were selected. The rationale for only including completers was that they were able to evaluate the entire concept of the intervention. Initially, eleven participants reported an interest in participating in interviews, of whom two declined due to lack of time and not responding to invitation. Nine participants remained, i.e. 33% of the original treatment group.

Participants were recruited nationally through advertisement in newspapers, social media and the Swedish Association of Local Authorities and Regions, the principal organization for municipalities, education and healthcare in the country. To be eligible for the study, participants had to fulfil the criteria for an adjustment disorder described in the subdivision *F43 Reaction to severe stress, and adjustment disorders* of the 10th revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10; World Health Organization, 1992). Diagnoses were established through telephone interviews, using the Mini International Neuropsychiatric Interview (Sheehan et al., 1998), and additional criteria from national diagnostic guidelines (Socialstyrelsen, 2003). In addition to adjustment disorder, participants had to fulfil the following criteria: (i) a minimum age of 18 years, (ii) mastering Swedish, (iii) have access to a computer or a tablet computer with internet access and (iv) currently employed. Mild to moderate forms of comorbid conditions were accepted as long as these were considered secondary to the primary adjustment disorder. Participants' on full- or part-time sick leave were also included.

Participants were excluded from the study if they (i) recently had participated in a stress management program, (ii) currently were suffering from bipolar disorder, psychosis, post-traumatic stress syndrome (PTSD), eating disorder, substance abuse, severe forms of depression, anxiety disorder or personality disorders, or (iv) were showing suicidal ideation based on item 9 of the Montgomery Åsberg Depression Scale-Self Rated (Montgomery and Åsberg, 1979). Participants taking medication (e.g., antidepressants or sleep medication) were not excluded from the study but were requested to keep their medication constant during the study period. In total, 84 individuals were screened in the original study. 30 were excluded according to the inclusion and exclusion criteria specified above.

2.1.3. Intervention

The iCBT evaluated in the present pilot trial was based on our previous studies (Ly et al., 2015; Persson Asplund et al., 2018; Zetterqvist et al., 2003), showing moderate to large effect sizes (Cohen's d) for stress and burnout (0.50 to 0.95), depression (0.60 to 0.86) and small effect sizes for insomnia (0.34). The iCBT program included contemporary CBT techniques adapted for stress, and recovery from work training inspired by Hahn et al. (2011), combined with work-focused CBT adapted from a manual by Lagerveld et al. (2012). All components were integrated and represented in each module.

Table 1
Content of modules.

Module	Name	CBT content	Work-focused content
1	Introduction	Psychoeducation about stress and establishing goals	Exercise regarding work content, tasks, demands and workload
2	Balance	Recovery through psychological detachment, mindfulness, life/work balances and values	Exercise concerning work conditions, employment type, status and security
3	Stressful thoughts, feelings & behaviors	Recovery through applied relaxation (step 1) stress diary, function relation between stress, appraisals, emotions and behavior	Exercise involving work relations, cooperation, leadership, organizational justice, feedback, social support, conflicts, harassment and bullying
4	Recovery in everyday life	Work/life balance, applied relaxation (step 2) stress diary, coping with stressors, sleep management (step 1) and values	Exercise involving job satisfaction, meaningfulness and the importance of working for contentment
5	Challenges	Gradual exposure in a stress-related area, recovery through mastering new skills, applied relaxation (step 3) and sleep management (step 2)	Summary of the entire work situation. Plan for workplace adjustments and gradual return-to-work plan (only for participants on sick leave)
6	Challenges, continued	Continued exposure, values, applied relaxation (step 4) and sleep management (step 3)	Effort, appreciation and reward and continued plan for workplace adjustments and gradual return-to-work plan
7	Physical exercise	Recovery through physical exercise, applied relaxation (step 5) and sleep management (step 4)	Control, responsibility and autonomy and continued plan for workplace adjustments and gradual return-to-work plan
8	Planning	Time management, values, applied relaxation (step 6) and sleep management (step 5)	Social support, instrumental, emotional and informative support and continued plan for workplace adjustments and gradual return-to-work plan
9	Stressed and cognitive functioning	Stress, burnout and cognitive functioning, how to manage distractions and temporary memory problems and applied relaxation (step 7)	Recovery in the workplace and continued plan for workplace adjustments and gradual return-to-work plan
10	Action and relapse prevention plan	Evaluation of training and goals, early warning signs, values, summary and prevention plan	Summary and prevention plan

The iCBT consisted of ten modules distributed over ten weeks, with sessions lasting 60–120 min each week (Table 1). Each module contained between 5 and 16 regular pages of information. All participants were requested to complete each module and homework assignment before being able to continue. Delayed participants were able to catch up during the last modules of the program. All participants had access to the treatment one year after the post treatment assessment (T2). Each module contained information, exercises, worksheets, images, examples, audio- and video files and homework exercises.

In the first module (introduction), the participants received information about the layout of the program, and they defined their individual goals (e.g., “I would like to be more assertive”). The first week also contained information and exercises on stress physiology, stressors (e.g., workload, pace, social support) and how to manage those stressors. During the second week (balance) the participants were introduced to different recovery techniques (Hahn et al., 2011) and applied relaxation (Öst, 2009). These reoccurred throughout the program. The third and fourth week contained exercises related to behavioral activation (Martell et al., 2001) and the work-home interface and values-based action skills applied from Acceptance Commitment Therapy (Flaxman and Bond, 2010). Between weeks five and ten, participants were able to choose and practice in a stress-related area, assertiveness, perfectionism, procrastination or worry. In addition, participants could choose to focus on sleep management, physical activity and/or time management.

In accordance with the CBT-based program described above, participants also received work-focused modules. These modules were adapted for iCBT with permission from Lagerveld et al. (2012). Work-focused CBT is built on the same conceptual framework as regular CBT. For example, CBT principles are used to change the appraisal of work stressors (e.g., “it is ok although the task is not 100% complete or perfect”), change the dysfunctional behavior (e.g., working late close to bedtime, accept more work despite heavy workload), or increase work and health promoting behaviors (e.g. recreational activities, assertive behavior, return-to-work activates). Exposure is given special attention. Gradual exposure can help individuals develop more effective coping skills when dealing with work-related stressors (e.g., assertiveness). It can also stimulate gradual return to the work setting for individuals on a long-term sick leave (Blonk et al., 2006).

Following the work-focused CBT manual and the module-based layout of the program, participants outlined their (1) Work content,

including tasks, demands and workload, (2), Work conditions, comprising employment type, status and security, (3) Work relations, involving cooperation, leadership, organizational justice, feedback, social support, conflicts, harassment and bullying, (4) Job satisfaction, including, meaningfulness and the importance of work for contentment. In module four, participants were asked to summarize and reflect on their entire work situation (e.g., Do you enjoy work? Do you want to stay? What do you need to thrive and cope?). In the consecutive modules (5–10), the participants were encouraged to create a plan for workplace adjustments together with their supervisor, based on their needs and health conditions. Similarly, participants who were on sick leave were asked to make a gradual return-to-work plan together with their general practitioner.

Every week, participants in the iCBT group received personalized written e-mail from a therapist with feedback on the exercises. Guidance was given to the CBT and work focused modules simultaneously. The therapists were Psychologists or Counselors with extensive experience on stress-related disorders who were specifically trained to perform feedback according to a standardized manual. The aim of the feedback was to provide support and encouragement, monitor homework assignments and adherence to the intervention. The iCBT group had full access to regular healthcare during the trial. The therapists were requested to minimize their support to one e-mail per week covering one third of a regular letter and a maximum of 15 min of conversation per week and participant.

2.2. The qualitative study

2.2.1. Participants

Tables 2 and 3 present the demographics of the nine selected participants original treatment group (TG). In general, the participants did not differ significantly from the participants in the. All participants were female, in contrast to 92% female participants in the TG. Age ranged from 28 to 61 years with a mean of 48.50 years (SD = 10.38) being representative of the TG (M = 47.67, SD = 8.42). Similarly to the TG, all participants had a stress or burnout diagnosis and seven of nine participants had additional diagnoses (depression, anxiety or insomnia).

2.2.2. Interview procedure

Qualitative data was collected through semi-structured interviews,

Table 2
Characteristics of selected participants.

Participant	Age	Industry	University level education	No. logins	Sick leave	PSS-10 (T1-T2)	SMBQ (T1-T2)
1	52	Healthcare or social services	Yes	50	0%	T1: 27 T2: 19	T1: 5.5 T2: 4.59
2	61	Healthcare or social services	Yes	32	50%	T1: 27 T2: 16	T1: 5.95 T2: 3.82
3	46	Healthcare or social services	No	34	0%	T1: 17 T2: 7	T1: 4.23 T2: 1.86
4	49	Healthcare or social services	Yes	34	100%	T1: 23 T2: 19	T1: 4.95 T2: 4.27
5	50	Manufacturing	Yes	41	0%	T1: 24 T2: 20	T1: 5.41 T2: 4.27
6	51	Healthcare or social services	Yes	63	100%	T1: 27 T2: 17	T1: 4.95 T2: 3.77
7	35	Construction	Yes	34	0%	T1: 20 T2: 16	T1: 5.36 T2: 3.95
8	28	Manufacturing	Yes	21	0%	T1: 23 T2: 14	T1: 4.59 T2: 2.73
9	47	Education and research	Yes	20	0%	T1: 23 T2: 17	T1: 4.36 T2: 2.55

Abbreviations: PSS-10 = perceived stress scale, 10-item version; SMBQ = Shirom Melamed Burnout Questionnaire, 22-item version; T1 and T2 = Pre- and post-measurement (10 weeks after randomization).

Table 3
Characteristics of selected participants.

Characteristics	Treatment group (N = 27)	Selected sample (N = 9)
Sociodemographic characteristics		
Age (years), M (SD)	47.67 (8.42)	48.50 (10.38)
Gender, female, n (%)	25 (93)	9 (100)
Married or cohabiting, n (%)	23 (85)	8 (89)
University level education, n (%)	18 (67)	8 (89)
Work characteristics		
Working hours per week, M (SD)	38.34 (3.19)	40.00 (0.00)
Hours of overtime per week, M (SD)	4.10 (3.68)	5.40 (3.78)
Long-term sick leave, n (%)	6 (22)	3 (33)
Work sectors, n (%)		
Health and social	12 (44)	5 (56)
Education and research	3 (11)	1 (11)
Construction	1 (4)	1 (11)
Manufacturing	0 (0)	2 (22)
Mean improvement, T1-T2, M (SD)		
PSS	7.50 (5.33)	7.33 (2.87)
SMBQ	1.35 (0.96)	1.46 (0.65)
MADRS-S	6.32 (6.24)	5.25 (5.82)
GAD-7	4.59 (4.79)	4.75 (2.25)
Number of logins and contacts, M (SD)		
Logins	33.37 (13.86)	36.56 (13.23)
E-mail contacts	15.37 (9.62)	20.13 (12.70)

Abbreviations: PSS-10 = perceived stress scale, 10-item version; SMBQ = Shirom Melamed Burnout Questionnaire, 22-item version; MADRS-S = Montgomery Åsberg Depression Rating Scale; GAD-7 = generalized anxiety disorder 7-item scale; T1 and T2 = pre- and post-measurement (10 weeks after randomization).

using open-ended questions. Semi-structured interviews have the advantage of being neither an open interview nor a closed questionnaire (Kvale and Birkmann, 2014). After completion of the three-month follow-up (T3), the selected participants were contacted via e-mail. If the participants responded positively, an interview appointment was made. Telephone interviews were conducted between December 2016 and January 2017 by two master's degree Counselors (AJ, IHB). After receiving informed consent, the interviews were recorded and anonymized during transcription. Interviewers and coders were not blinded to the participants' treatment outcomes. The average duration of an interview was 52 min (range, 38 min to 1 h 17 min).

2.2.3. Preconceptions

Interviewers and coders were experienced master's degree Counselors and healthcare professionals, with CBT orientation. They had previous experience of CBT of stress and mental health disorders. The interviewers and coders had provided support as therapist in the iCBT group. However, therapist did not interview their assigned participants.

2.2.4. Interview structure

Interview questions were selected based on previous research (Bendelin et al., 2011; Fleischmann et al., 2017; Rozental et al., 2014; Svartvatten et al., 2015). The interview questions aimed at capturing the participants' experiences of the intervention regarding usability, user-friendliness, feedback and support, motivation, session length, extent, work effort and effects on mental health and wellbeing

Table 4
Interview guide.

Questions
1. On average, how many hours each week did you use the program?
2. What sections, exercises or tasks did you find most useful? In what way were they useful?
3. What sections, exercises or tasks did you find less useful? In what way were they less useful?
4. Did you think something was missing in the program?
5. How did you experience the extent and workload (e.g. text, exercises and homework) of the program?
6. How did you experience the level of difficulty of the program?
7. How did you experience your work effort in relation to what you think is required to get the most out of the program?
8. What is your opinion regarding the content of the program? What could be improved?
9. How user-friendly did you find the program? What could be improved?
10. What recommendations would you give to someone who is considering the program?
11. How did you experience having a contact person?
12. How quickly did you get a response from the contact person? How satisfactory was the response?
13. What do you think about the contact person and their ability to give support?
14. What has been most helpful with the contact person?
15. Reflect on whether there was anything you lacked in the contact or not, for example, if there was something that the contact person could do more or less?
16. How would you describe your mental health today? Has it changed? If so, how?
17. How do you apply the knowledge you have gained in the program in your daily life?

(Table 4).

2.2.5. Analysis

The interview material was analyzed through thematic analysis according to recommendations from Braun and Clarke (2006). Thematic analysis is a practical and flexible method in which collected material is identified, analyzed and reported on the basis of themes (Joffe, 2011). In the analysis, a combination of deductive and inductive thematic analyses was used. A combination of empirically-controlled and theory-driven themes is common in qualitative research and is superior to a validity point of view (Braun and Clarke, 2013).

2.2.6. Coding procedure

In the analysis process, the authors followed Braun and Clarke's (2006) six-step coding procedure, including (1) Transcription and repeated reading of all material, (2) Coding of keywords (3) Organizing keywords in themes and sub-themes (4) Reviewing and revising themes, (5) Defining, analyzing and naming each theme and sub-themes, (6) Compiling of results and implementing the final analysis. In the first stage, two researchers worked individually to encode all material with repeated reading and coding of keywords and phrases to search for patterns and themes. In the second stage, coding of keywords and themes was compared, reviewed and refined. Disagreements were discussed, and revisions were made in an iterative process until a consensus was achieved. The keywords were then encoded and processed in the qualitative computer program NVivo Software (version 11.4.1.). The advantage of a computer-aided analysis of qualitative data was that all transcripts could remain digital and that large amounts of material could be sorted and grouped based on a coding procedure.

2.2.7. Ethics

The current study was part of a clinical trial, which received ethical approval by the Ethics Committee of Linköping University, Sweden (ref. number 2016/11-31). The anonymity of the participants was ensured using automatically generated identification codes. In addition, the information given by the participants during the interview was anonymized during the transcription process.

3. Results

The thematic analysis generated six themes derived from the interview including, (1) Content, (2) Advantages, (3) Disadvantages, (4) Guidance, (5) Commitment and (6) Effects. All themes are described in Table 5.

3.1. Content

The theme content describes the participants' experience of the

Table 5
Themes of the thematic analysis.

Theme	Sub-themes
Content	User-friendliness Module extent Level of difficulty
Advantages	Overall satisfaction with the intervention Sections perceived as useful
Disadvantages	Sections perceived as less useful Disadvantages of ending treatment
Guidance	Perceived support Need for extended therapist support
Commitment	Time spent on treatment Effort Commitment to treatment
Effects	Mental health and well-being Insights

treatment program and the IT-platform. The content of the program was conceptualized as the level of difficulty and the work-effort in relation to the participants' resources. The experiences of the IT-platform included the user-friendliness of the layout and functions (e.g. login, navigation, video-files).

3.1.1. User-friendliness

Most of the participants perceived the intervention and IT-platform (Vlaescu et al., 2016) straightforward, easy to navigate, easy to understand and functioned without interference. Typical comments were: "There were no interruptions, one could easily move back and forth" (Participant 5), and "There was no problem, it was terrific" (Participant 3). Two participants wished that the program had contained more movies and audio files, in order to facilitate learning and variation: "It could have been a little easier and varied, instead of having a lot of text" (Participant 8). Three participants found the login process difficult because of the two-factor authentication. Three participants would have preferred to print all the modules in one document, instead of printing each module separately. One suggestion was that all participants should have had access to a group forum, where they could have asked each other's questions. This participant also suggested a more smartphone-friendly version.

3.1.2. Module extent

All participants described the program as extensive and demanding: "It was easy to get a little, what should I say, frustrated or stressed over the extent of the program" (Participant 4). However, none of the participants expressed that they wished to reduce the extent of the program: "I don't think anything should be removed" (Participant 2). A majority of the participants perceived the intervention as informative, relevant and well balanced between theories and exercises. As a strategy, not being overwhelmed by the extent of the program, many participants reported that they chose to focus on the most relevant sections: "It was like a large smorgasbord and I choose to work with those sections most central to me" (Participant 8). Five participants expressed the need to extend the treatment after the ten-week period: "If you are really distressed you might not have the strength to finalize the program in ten weeks" (Participant 1) and wished for the "opportunity to extend to twenty weeks" (Participant 7).

3.1.3. Level of difficulty

Three participants expressed that the treatment was demanding: "It requires both motivation and an ability to comprehend and express yourself in writing. It's not for everyone" (Participant 4). However, none of the participants described the material as too theoretical. Four participants expressed that their stress-related difficulties, with symptoms of both emotional and physical fatigue and cognitive disturbances, made it difficult to utilize some of the material: "Sometimes I had to read a section several times to understand, and it was not because they were badly written, it was just because I didn't manage to concentrate" (Participant 1). Accordingly, several participants expressed that, in future development, more consideration should be taken to severe symptom of stress and burnout, (e.g. fatigue and cognitive disturbances). For example, examine the feasibility of reducing sessions to a length that does not drain the participants' resources.

3.2. Advantages

Advantages describe the participants' overall satisfaction with the intervention and the flexibility of the internet-based format. It also captures a deeper understanding of the participants' experiences of the sections and exercises most use- and helpful to them.

3.2.1. Overall satisfaction with the intervention

All participants expressed an overall satisfaction with the intervention. Several participants also expressed their gratitude for getting

the chance to participate and for being able to implement the acquired knowledge in their daily life: "It made me realize... after all, work is such a large part of life and it became clear what I was missing at my workplace." (Participant 6). A majority of the participants stated the advantage of the internet-based format and the flexibility to read, reflect and answer wherever and whenever suited: "I just think in a situation, where you have to commute a long way ... this is a way to access treatment" (Participant 5). Two participants expressed the advantage of avoiding their fear of having to meet a therapist face-to-face: "In fact, it can be nice to avoid seeing people in the eyes" (Participant 2). Another advantage mentioned was the opportunity to go back and repeat what was written in previous modules.

3.2.2. Sections perceived as useful

In general, participants expressed that the intervention was useful. Most useful were the sections regarding psychoeducation, managing stress factors in both work and private life, and modules on sustainable working life: "Recovery and sustainability in my working life, that's what I was missing and needed to work with every day" (Participant 6). Several participants emphasized that they had previous knowledge about stress. However, the section on psychoeducation had given them deeper knowledge about physical and mental symptoms of stress and burnout and how they could manage these through behavioral change: "There was a lot of information about stress, what was happening in the body and so on, I think... it was a essential to understand what stress actually is and how it affects our behaviors and symptoms" (Participant 9). Six participants found it useful to reflect on their work situation. For example, one participant expressed it as, "Previously I worked alone... it was the most fun job I've ever had as a nurse... I was well-liked, it was fantastic... but I realized that this loneliness didn't work for me, I hadn't realized that before" (Participant 3).

3.3. Disadvantages

This theme describes the participants' experiences of the sections and exercises not use- or helpful to them, and disadvantages of ending the treatment and therapist support after ten weeks.

3.3.1. Sections perceived as less useful

The participants had different opinions about which sections or exercises they perceived as less useful. The task that the majority of the participants mentioned as less useful was the stress diary. The stress diary was described as too extensive and was often skipped: "I thought it was difficult, it takes time because it is often a hundred small things that stresses you and if you have to write it down, ... it becomes more stressful" (Participant 7). In addition, there were several heterogeneous statements about which sections or exercises they perceived as less useful. Typically, the participants mentioned individual exercises that they did not consider relevant or useful, such as sleep management or return-to-work plan, when not having insomnia nor being on long-term sick leave.

3.3.2. Disadvantages of ending treatment

Four participants expressed disadvantages of ending the treatment and therapist support after ten weeks. They would have preferred a follow-up session and continued support to maintain positive change: "I probably would have needed a follow-up after a month or two, just to stay on track... I feel that I need help from someone kicking me in the butt by asking, how's it going for you, have you tried this, what's your thought about this ... it surely would have been helpful" (Participant 8). Some experienced the end of the treatment as abrupt: "It felt so empty when it was finished, because then there was nothing more... I missed it" (Participant 5).

3.4. Guidance

Guidance describes how the participants' perceived the therapist support. The theme refers to the quantitative (e.g. frequency, usage) as well as qualitative aspects of the therapist feedback and support (e.g. authenticity, individualization) and how it meet the participants needs and preferences.

3.4.1. Perceived support

The need for support varied between the participants. Some stated that they had limited, or neutral contact. Others, a more close and personal contact. "I didn't need him so much. A few times I received some hints and ideas and I contacted him when I was ready with one module and he replied" (Participant 9). However, all respondents emphasized the importance of having access to therapist support. Some even stated that the contact was essential for completing the treatment: "If I had done it myself without support, I would not have managed it. Because I procrastinate, I'll do it later" (Participant 4). According to a majority of the participants, the main function of the therapist was to monitor progress and adherence and provide support and encouragement: "Otherwise, I think, if there hadn't been a person who expected feedback, the ten-week program had taken at least thirty weeks" (Participant 1). Another important function was to help participants adjust their ambition: "My therapist urged me to lower my ambition, that I couldn't expect to manage everything the same way as before" (Participant 6). All participants described that they were satisfied with the feedback from the therapist, both in terms of frequency (response time) and quality (content). Support was perceived as individualized with a deep understanding of their situation: "She was super at grasping what she read and maybe between the lines too" (Participant 8) and "The support gave me more than I had expected. I didn't think it was possible to get it this way. When you didn't even talk to each other" (Participant 2). Response time ranged from the same day to three days: "I almost thought, is she never off duty? Because she responded very quickly" (Participant 1).

3.4.2. Need for extended therapist support

Three participants expressed a need for telephone or video support when necessary. E-mail contact was sometimes perceived as inconvenient, formal and limiting and telephone or video support was presented as a more relaxed and spontaneous alternative: "Sometimes it was difficult, yes, to ask a question by e-mail, I am used to dialog, so sometimes, I think, I really would have wanted to discuss things over the phone" (Participant 5).

3.5. Commitment

This theme was conceptualized as the time, effort and active use of the treatment.

3.5.1. Time spent on treatment

The participants described a large variation in the time spent on the program. Time ranged between 1 1/2–2 h and 8–10 h per week and with an average of 2–4 h: "Somewhere between two to three hours. I'd say two hours on the actual tasks and one hour when you practice some techniques" (Participant 3).

3.5.2. Effort

Eight participants stated that they would have spent more time on the program to maximize its full potential, if they would have had the time and energy. However, this was considered too extensive in relation to their capacity. Some also expressed the ambition to return to the program after the treatment was completed: "I think I did a good job, but if I would have had more energy, I can imagine I would have put even more time into the program." (Participant 5).

3.5.3. Commitment to treatment

A majority of the participants expressed an active use of the treatment; that the program was present in their thoughts between sessions: "I was thinking a lot about the questions and the exercises in the program. Even when I wasn't using it. I was reflecting about myself, my values, and how I feel about work." (Participant 8). Despite symptoms of fatigue and cognitive disturbances with concentration and memory, the participants made efforts to implement new knowledge to improve their life situation: "I really think that this was hard work, but I managed to do it anyway..." (Participant 4).

3.6. Effects

Effects describe the participants' experiences of effects in terms of mental health and well-being as well as insights, in both life and at work.

3.6.1. Mental health and well-being

Six participants explicitly described that their mental health and well-being had improved by participating: "It felt like a comeback, I'm much happier and more positive. It's fun to talk to people, hang out with friends and stuff." (Participant 2). Participants expressed that these effects were also perceived by co-workers: "Even my colleagues said, welcome back! It was as if I was back in the game" (Participant 6). Three participants stated that although their perceived stress had not diminished, they felt that they had learned how to manage stress with new strategies: "I'm still very stressed but now I listen more to my body, I listen more to my signals. Now I can recover better during the day and I sleep well at night. So, in a way my mental health is better, even though, I still have many symptoms... but not in the same way as before." (Participant 7). Five participants described that they were more aware of their stress behaviors: "Previously I got really stressed in queues as well, I was always annoyed about it, but now I think in a different way." (Participant 9).

3.6.2. Insights

Several participants described that the treatment gave rise to new insights, in both life and at work. For example, four participants stated that they now understood how much stress affected their life and the exercises on valued living and life balance brought them deeper understanding of the need for change. Two participants described that they felt sad when they realized the priorities they had made: "I remember that when I saw the result, it was like a punch in the face. It was probably the hardest part of all, just that." (Participant 1). A majority of respondents commented on the need for re-prioritizing their life situation and that behavioral changes should be seen as an ongoing process: "I think this is a work in progress... because you want to feel good, and just like someone who works with a physical demanding job has to work out in a gym in order to cope with their work, I who... have a mentally demanding job... maybe have to work out my brain." (Participant 3). Six participants described that the work-focused material made them reflect about their work: "It became clear to me what I was missing in my workplace; what I got too little of and what I had too much of." (Participant 9).

4. Discussion

The main purpose of the present study was to examine participants' experiences of having completed an iCBT and how the intervention could be improved to further enhance the efficacy and utilization in the target population. The results indicated that most of the participants experienced positive effects on their mental health and well-being in both life and at work. All participants emphasized the importance of having access to therapist support. In line with previous research, participants found the intervention to be extensive and demanding and expressed the need for extended treatment time and therapist support.

Combined CBT and work-focused interventions have previously been studied (Blonk et al., 2006; Lagerveld et al., 2012), but, as far as we know, never been evaluated in a qualitative study. The participants' experience of combined effects in their personal- and work life are promising, since the efficacy of iCBT and CBT usually extends to mental health and well-being (Andersson et al., 2019).

All participants found that the intervention was useful, relevant and user-friendly. Most useful were the sections regarding psychoeducation on stress, managing stress factors in both work and private life, and modules on sustainable working life. The task that the majority of the participants mentioned as least useful was the stress diary. The stress diary was described as too extensive and was often skipped. Perhaps the somewhat passive and repetitive nature of recording thoughts, feelings and behaviors linked to stressful situations, was less engaging than more active sections linked to behavioral change.

All participants emphasized the importance of having access to therapist support, which is in line with previous research suggesting better outcome when guidance is included (Baumeister et al., 2014). Some even stated that the contact was a prerequisite for completing the treatment. According to the participants, the main function of the therapist was to monitor progress and adherence and provide encouragement and support.

Aligned with previous research, participants found the intervention to be extensive and demanding, and session lengths and deadlines constituting a stress factor (Bendelin et al., 2011; Fleischmann et al., 2017; Halmetoja et al., 2014; Rozental et al., 2015a). Nevertheless, none of the participants wished to reduce the extent of the program. The present iCBT program contained both CBT- and work-focused material integrated and represented each module, covering between 5 and 16 regular pages of information. To our knowledge, 5 and 16 regular pages of information per module are comparable to other iCBT programs. However, given the challenge of developing iCBT interventions for stress and burnout that neither drain the participants' resources nor compromise the quality of the program, it could be feasible to test different iCBT formats for stressed participants. We have previous positive experiences of reducing content to 2/3 of the original format with sustained efficacy (Dagöo et al., 2014).

A majority expressed a need for extended treatment time, more frequent therapist support (when needed) and a follow-up or booster session. However, themes expressed in previous research regarding the need for more individualized feedback and support were not emphasized by the participants in the present study (Fleischmann et al., 2017; Gerhards et al., 2011; Ly et al., 2015; Rozental et al., 2015a). On the contrary, most of the participants perceived the treatment and the support as authentic and tailored to their needs, situation and preferences. In our previous studies, therapist has been Master's level students with limited past experience on stress-related disorders. In the present study, the therapists had long experience (20–30 years) as health care professionals and of treatment of stress and burnout. Perhaps their extensive experience enabled them to respond more authentically.

4.1. Limitations

The present study has several limitations in terms of selection, representativeness and interview procedure. First, participants were selected from the original study's treatment group using a criterion-based sampling approach, selecting those participants who had completed all treatment modules and the three-month follow-up assessment. The decision not to include dropouts potentially diminished the variety of perspectives, as they could have contributed with different experiences and suggestions for improvements of the intervention. Second, it is possible that the participants in the selected sample were more motivated (e.g. completed all treatment modules) and thereby reducing variation in experiences, as expressed by participants. Third, the participants in the present study cannot be seen as representative for the

general working population given that all were women, eight had a university-level education, and eight suffered from severe stress disorder. Fourth, the interviews took place approximately three months after the end of treatment, which may have affected the results. Considering the effect of time, participants may have biased memories of the treatment and the treatment procedure. Fifth, telephone interviews were conducted. According to recommendations (Langemar, 2008), telephone interviews should only be used in cases where face-to-face interviews are not feasible (e.g. geographical distance). This could have affected the allegiance of the participants to the interviewer and which experiences they chose to disclose. However, there are both advantages and disadvantages with telephone interviews. The disadvantages are that the non-verbal communication is missed and that the interview can be perceived as formal. On the other hand, interviews by phone can be perceived as more anonymous, which can appeal to some participants, facilitating disclosure of sensitive and important information (Carlbring et al., 2001). Due to the fact that the respondents were geographically dispersed, it was not feasible to conduct face-to-face interviews. Sixth, interviewer and coders were not blinded to the improvement of the participants, and therefore might have missed relevant themes. In addition, all therapists had long experience of treatment of stress and stress related disorders and this might have affected their perception and thereby missing important information that had been disclosed by a neutral interviewer. Finally, the therapists did the interviewing and it is likely that their positive view of the iCBT could influence the participants. Using therapists for both treatment and interviews was made due to limited resources. However, we assured that the therapists did not interview those participants they previously had treated.

4.2. Future recommendations

Considering the limitations of the study, future research could examine the feasibility of reducing session length, extending therapist support, fewer parallel home assignments, audio- and video files instead of written information and flexibility regarding deadlines, to further enhance the acceptance and utilization in the target population. Rozental et al. (2015a) stressed that some of the negative effects of internet-based interventions could be prevented by increasing flexibility of the treatment program. On the other hand, findings suggest negative effects of giving too much flexibility (e.g. extending treatment time with several weeks; Andersson, 2014). The challenge for future research targeting stressed individuals is to develop interventions that does not drain the participants' cognitive resources, nor compromises the quality of the program.

Acknowledgements

The study was sponsored by grants to the last author from the Swedish Council for Working and Life Research (FORTE) and Sweden's Municipalities and County Councils (SKL). We thank webmaster George Vlaescu, Linköping University, for his help with the study and Suzanne E Lagerfeld, Utrecht and Amsterdam University, and Roland W B Blonk, TNO, for sharing their work on work-focused CBT.

Funding

This work was supported by Swedish Council for Working and Life Research (FORTE) and Sweden's Municipalities and County Councils (SKL).

Declaration of competing interest

All authors declare no competing interest.

References

- Åkerstedt, T., 2006. Psychosocial stress and impaired sleep. *Scand. J. Work Environ. Health* 32, 493–501.
- Alberts, N.M., Hadjistavropoulos, H.D., Titov, N., Dear, B.F., 2018. Patient and provider perceptions of Internet-delivered cognitive behavior therapy for recent cancer survivors. *Support. Care Cancer Off. J. Multinat. Assoc. Support. Care Cancer* 26, 597–603. <https://doi.org/10.1007/s00520-017-3872-8>.
- Andersson, G., 2014. *The Internet and CBT: A Clinical Guide, 1 edition*. CRC Press, Boca Raton.
- Andersson, G., Titov, N., Dear, B.F., Rozental, A., Carlbring, P., 2019. Internet-delivered psychological treatments: from innovation to implementation. *World Psychiatry Off. J. World Psychiatr. Assoc. WPA* 18, 20–28. <https://doi.org/10.1002/wps.20610>.
- Arends, I., Bruinvels, D.J., Rebergen, D.S., Nieuwenhuijsen, K., Madan, I., Neumeyer-Gromen, A., Bültmann, U., Verbeek, J.H., 2012. Interventions to facilitate return to work in adults with adjustment disorders. *Cochrane Database Syst. Rev.* 12, CD006389. <https://doi.org/10.1002/14651858.CD006389.pub2>.
- Baumeister, H., Reichler, L., Munzinger, M., Lin, J., 2014. The impact of guidance on Internet-based mental health interventions — a systematic review. *Internet Interv.* 1, 205–215. <https://doi.org/10.1016/j.invent.2014.08.003>.
- Bendelin, N., Hesser, H., Dahl, J., Carlbring, P., Nelson, K.Z., Andersson, G., 2011. Experiences of guided Internet-based cognitive-behavioural treatment for depression: a qualitative study. *BMC Psychiatry* 11, 107. <https://doi.org/10.1186/1471-244X-11-107>.
- Blonk, R.W.B., Brenninkmeijer, V., Lagerfeld, S.E., Houtman, I.L.D., 2006. Return to work: a comparison of two cognitive behavioural interventions in cases of work-related psychological complaints among the self-employed. *Work Stress* 20, 129–144. <https://doi.org/10.1080/02678370600856615>.
- Braun, V., Clarke, V., 2006. Using thematic analysis in psychology. *Qual. Res. Psychol.* 3, 77–101.
- Braun, V., Clarke, V., 2013. *Successful Qualitative Research: A Practical Guide for Beginners*. SAGE, London.
- Carlbring, P., Westling, B.E., Ljungstrand, P., Ekselius, L., Andersson, G., 2001. Treatment of panic disorder via the Internet: a randomized trial of a self-help program. *Behav. Ther.* 32, 751–764. [https://doi.org/10.1016/S0005-7894\(01\)80019-8](https://doi.org/10.1016/S0005-7894(01)80019-8).
- Chisholm, D., Sweeny, K., Sheehan, P., Rasmussen, B., Smit, F., Cuijpers, P., Saxena, S., 2016. Scaling-up treatment of depression and anxiety: a global return on investment analysis. *Lancet Psychiatry* 3, 415–424. [https://doi.org/10.1016/S2215-0366\(16\)30024-4](https://doi.org/10.1016/S2215-0366(16)30024-4).
- Dagöö, J., Asplund, R.P., Bsenko, H.A., Hjerling, S., Holmberg, A., Westh, S., Öberg, L., Ljótsson, B., Carlbring, P., Furmark, T., Andersson, G., 2014. Cognitive behavior therapy versus interpersonal psychotherapy for social anxiety disorder delivered via smartphone and computer: a randomized controlled trial. *J. Anxiety Disord.* 28, 410–417. <https://doi.org/10.1016/j.janxdis.2014.02.003>.
- Dimidjian, S., Hollon, S.D., 2010. How would we know if psychotherapy were harmful? *Am. Psychol.* 65, 21–33. <https://doi.org/10.1037/a0017299>.
- Ebert, D.D., Heber, E., Berking, M., Riper, H., Cuijpers, P., Funk, B., Lehr, D., 2016. Self-guided internet-based and mobile-based stress management for employees: results of a randomised controlled trial. *Occup. Environ. Med.* 73, 315–323. <https://doi.org/10.1136/oemed-2015-103269>.
- Eurofound, 2017. *Sixth European Working Conditions Survey – Overview Report (2017 Update)*. Publications Office of the European Union, Luxembourg.
- Flaxman, P.E., Bond, F.W., 2010. Worksite stress management training: moderated effects and clinical significance. *J. Occup. Health Psychol.* 15, 347–358. <https://doi.org/10.1037/a0020522>.
- Fleischmann, R.J., Harrer, M., Zarski, A.-C., Baumeister, H., Lehr, D., Ebert, D.D., 2017. Patients' experiences in a guided Internet- and app-based stress intervention for college students: a qualitative study. *Internet Interv.* <https://doi.org/10.1016/j.invent.2017.12.001>.
- Gerhards, S.A.H., Abma, T.A., Arntz, A., de Graaf, L.E., Evers, S.M.A.A., Huibers, M.J.H., Widdershoven, G.A.M., 2011. Improving adherence and effectiveness of computerised cognitive behavioural therapy without support for depression: a qualitative study on patient experiences. *J. Affect. Disord.* 129, 117–125. <https://doi.org/10.1016/j.jad.2010.09.012>.
- Goetzel, R.Z., Henke, R.M., Tabrizi, M., Pelletier, K.R., Loeppke, R., Ballard, D.W., Grossmeier, J., Anderson, D.R., Yach, D., Kelly, R.K., McCalister, T., Serxner, S., Selecky, C., Shallenberger, L.G., Fries, J.F., Baase, C., Isaac, F., Crighton, K.A., Wald, P., Exum, E., Shurney, D., Metz, R.D., 2014. Do workplace health promotion (wellness) programs work? *J. Occup. Environ. Med.* 56, 927–934. <https://doi.org/10.1097/JOM.0000000000000276>.
- Grossi, G., Perski, A., Osika, W., Savić, I., 2015. Stress-related exhaustion disorder—clinical manifestation of burnout? A review of assessment methods, sleep impairments, cognitive disturbances, and neuro-biological and physiological changes in clinical burnout. *Scand. J. Psychol.* 56, 626–636. <https://doi.org/10.1111/sjop.12251>.
- Hahn, V.C., Binnewies, C., Sonnentag, S., Mojza, E.J., 2011. Learning how to recover from job stress: effects of a recovery training program on recovery, recovery-related self-efficacy, and well-being. *J. Occup. Health Psychol.* 16, 202–216. <https://doi.org/10.1037/a0022169>.
- Halmetoja, C.O., Malmquist, A., Carlbring, P., Andersson, G., 2014. Experiences of internet-delivered cognitive behavior therapy for social anxiety disorder four years later: a qualitative study. *Internet Interv.* 1, 158–163. <https://doi.org/10.1016/j.invent.2014.08.001>.
- Heber, E., Ebert, D.D., Lehr, D., Cuijpers, P., Berking, M., Nobis, S., Riper, H., 2017. The benefit of web- and computer-based interventions for stress: a systematic review and

- meta-analysis. *J. Med. Internet Res.* 19, e32. <https://doi.org/10.2196/jmir.5774>.
- Hilton, M.F., Whiteford, H.A., Sheridan, J.S., Cleary, C.M., Chant, D.C., Wang, P.S., Kessler, R.C., 2008. The prevalence of psychological distress in employees and associated occupational risk factors. *J. Occup. Environ. Med. Am. Coll. Occup. Environ. Med.* 50, 746–757. <https://doi.org/10.1097/JOM.0b013e31817e9171>.
- Joffe, H., 2011. Thematic analysis, in: In D. Harper & A. R. Thompson (Eds.), *Qualitative Research Methods in Mental Health and Psychotherapy: A Guide for Students and Practitioners*. Wiley, Chichester, pp. 209–223.
- Joyce, S., Modini, M., Christensen, H., Mykletun, A., Bryant, R., Mitchell, P.B., Harvey, S.B., 2016. Workplace interventions for common mental disorders: a systematic meta-review. *Psychol. Med.* 46, 683–697. <https://doi.org/10.1017/S0033291715002408>.
- Kessler, R.C., Akiskal, H.S., Ames, M., Birnbaum, H., Greenberg, P., Hirschfeld, R.M.A., Jin, R., Merikangas, K.R., Simon, G.E., Wang, P.S., 2006. Prevalence and effects of mood disorders on work performance in a nationally representative sample of U.S. workers. *Am. J. Psychiatry* 163, 1561–1568. <https://doi.org/10.1176/appi.ajp.163.9.1561>.
- Kiecolt-Glaser, J.K., McGuire, L., Robles, T.F., Glaser, R., 2002. Psychoneuroimmunology: psychological influences on immune function and health. *J. Consult. Clin. Psychol.* 70, 537–547.
- Kivimäki, M., Virtanen, M., Elovainio, M., Kouvonen, A., Väänänen, A., Vahtera, J., 2006. Work stress in the etiology of coronary heart disease—a meta-analysis. *Scand. J. Work Environ. Health* 32, 431–442.
- Kvale, S., Birkmann, S., 2014. Den kvalitativa forskningsintervjun, 3rd ed. Studentlitteratur, Lund.
- Lagerfeld, S.E., Blonk, R.W.B., Brenninkmeijer, V., Wijngaards-de Meij, L., Schaufeli, W.B., 2012. Work-focused treatment of common mental disorders and return to work: a comparative outcome study. *J. Occup. Health Psychol.* 17, 220–234. <https://doi.org/10.1037/a0027049>.
- Langemar, P., 2008. Kvalitativ forskningsmetod i psykologi: att låta en värld öppna sig. Liber.
- Lindqvist, D., Epel, E.S., Mellon, S.H., Penninx, B.W., Révész, D., Verhoeven, J.E., Reus, V.I., Lin, J., Mahan, L., Hough, C.M., Rosser, R., Bersani, F.S., Blackburn, E.H., Wolkowitz, O.M., 2015. Psychiatric disorders and leukocyte telomere length: underlying mechanisms linking mental illness with cellular aging. *Neurosci. Biobehav. Rev.* 55, 333–364. <https://doi.org/10.1016/j.neubiorev.2015.05.007>.
- Ly, K.H., Asplund, K., Andersson, G., 2015. Stress management for middle managers via an acceptance and commitment-based smartphone application: a randomized controlled trial. *Internet Interv.* 1, 95–101. <https://doi.org/10.1016/j.invent.2014.06.003>.
- Macdonald, W., et al., 2007. A qualitative study of patients' perceptions of a "minimal" psychological therapy. *Int. J. Soc. Psychiatry* 53 (1), 23–35. <https://doi.org/10.1177/0020764006066841>.
- Martell, C.R., Addis, M.E., Jacobson, N.S., 2001. *Depression in Context: Strategies for Guided Action*. W.W. Norton.
- Melchior, M., Caspi, A., Milne, B.J., Danese, A., Poulton, R., Moffitt, T.E., 2007. Work stress precipitates depression and anxiety in young, working women and men. *Psychol. Med.* 37, 1119–1129. <https://doi.org/10.1017/S0033291707000414>.
- Montgomery, S.A., Asberg, M., 1979. A new depression scale designed to be sensitive to change. *Br. J. Psychiatry J. Ment. Sci.* 134, 382–389.
- O'Mahen, H.A., Grieve, H., Jones, J., McGinley, J., Woodford, J., Wilkinson, E.L., 2015. Women's experiences of factors affecting treatment engagement and adherence in internet delivered behavioural activation for postnatal depression. *Internet Interv.* 2, 84–90. <https://doi.org/10.1016/j.invent.2014.11.003>.
- Öst, L.-G., 2009. Tillämpad avslappning: manual till en beteendeterapeutisk coping-teknik. (Lars-Göran Öst).
- Persson Asplund, R., Dagöö, J., Fjellström, I., Niemi, L., Hansson, K., Zeraati, F., Ziuzina, M., Geraedts, A., Ljótsson, B., Carlbring, P., Andersson, G., 2018. Internet-based stress management for distressed managers: results from a randomised controlled trial. *Occup. Environ. Med.* 75, 105–113. <https://doi.org/10.1136/oemed-2017-104458>.
- Pugh, N.E., Hadjistavropoulos, H.D., Hampton, A.J.D., Bowen, A., Williams, J., 2015. Client experiences of guided internet cognitive behavior therapy for postpartum depression: a qualitative study. *Arch. Womens Ment. Health* 18, 209–219. <https://doi.org/10.1007/s00737-014-0449-0>.
- Richardson, K.M., Rothstein, H.R., 2008. Effects of occupational stress management intervention programs: a meta-analysis. *J. Occup. Health Psychol.* 13, 69–93. <https://doi.org/10.1037/1076-8998.13.1.69>.
- Rozental, A., Andersson, G., Boettcher, J., Ebert, D.D., Cuijpers, P., Knaevelsrud, C., Ljótsson, B., Kaldö, V., Titov, N., Carlbring, P., 2014. Consensus statement on defining and measuring negative effects of Internet interventions. *Internet Interv.* 1, 12–19. <https://doi.org/10.1016/j.invent.2014.02.001>.
- Rozental, A., Boettcher, J., Andersson, G., Schmidt, B., Carlbring, P., 2015a. Negative effects of internet interventions: a qualitative content analysis of patients' experiences with treatments delivered online. *Cogn. Behav. Ther.* 44, 223–236. <https://doi.org/10.1080/16506073.2015.1008033>.
- Rozental, A., Forsström, D., Tangen, J.A., Carlbring, P., 2015b. Experiences of undergoing internet-based cognitive behavior therapy for procrastination: a qualitative study. *Internet Interv.* 2, 314–322. <https://doi.org/10.1016/j.invent.2015.05.001>.
- Sanderson, K., Andrews, G., 2006. Common mental disorders in the workforce: recent findings from descriptive and social epidemiology. *Can. J. Psychiatry Rev. Can. Psychiatr.* 51, 63–75.
- Savic, I., Perski, A., Osika, W., 2017. MRI Shows that Exhaustion Syndrome Due to Chronic Occupational Stress is Associated with Partially Reversible Cerebral Changes. *Cereb. Cortex N. Y. N* 1991. doi:<https://doi.org/10.1093/cercor/bhw413>.
- Sheehan, D.V., Lecrubier, Y., Sheehan, K.H., Amorim, P., Janavs, J., Weiller, E., Hergueta, T., Baker, R., Dunbar, G.C., 1998. The Mini-International Neuropsychiatric Interview (M.I.N.I.): the development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. *J. Clin. Psychiatry* 59 Suppl 20, 22-33;quiz 34-57.
- Socialstyrelsen, 2003. *Utmattningsyndrom: stressrelaterad psykisk ohälsa*. Socialstyrelsen, Stockholm.
- Svartvatten, N., Segerlund, M., Dénhag, I., Andersson, G., Carlbring, P., 2015. A content analysis of client e-mails in guided internet-based cognitive behavior therapy for depression. *Internet Interv.* 2, 121–127. <https://doi.org/10.1016/j.invent.2015.02.004>.
- Vlaescu, G., Alasjö, A., Miloff, A., Carlbring, P., Andersson, G., 2016. Features and functionality of the Iterapi platform for internet-based psychological treatment. *Internet Interv.* 6, 107–114. <https://doi.org/10.1016/j.invent.2016.09.006>.
- World Health Organization (Ed.), 1992. *ICD-10 Classification of Mental and Behavioural Disorders, 1st ed.* World Health Organization, Geneva.
- World Health Organization, 2008. *The Global Burden of Disease: 2004 Update*. World Health Organization, Geneva.
- Zetterqvist, K., Maanmies, J., Ström, L., Andersson, G., 2003. Randomized controlled trial of internet-based stress management. *Cogn. Behav. Ther.* 32, 151–160. <https://doi.org/10.1080/16506070302316>.