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Experiences of undergoing Internet-based cognitive behavior therapy for procrastination: A qualitative study

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ABSTRACT

Internet interventions constitute a promising and cost-effective treatment alternative for a wide range of psychiatric disorders and somatic conditions. Several clinical trials have provided evidence for its efficacy and effectiveness, and recent research also indicate that it can be helpful in the treatment of conditions that are debilitating, but do not necessarily warrant more immediate care, for instance, procrastination, a self-regulatory failure that is associated with decreased well-being and mental health. However, providing treatment interventions for procrastination via the Internet is a novel approach, making it unclear how the participants themselves perceive their experiences. The current study thus investigated participants' own apprehension of undergoing Internet-based cognitive behavior therapy for procrastination by distributing open-ended questions at the post-treatment assessment, for instance, "What did you think about the readability of the texts", "How valuable do you believe that this treatment has been for you?", and "The thing that I am most displeased with (and how it could be improved) is …". In total, 75 participants (50%) responded, and the material was examined using thematic analysis. The results indicate that there exist both positive and negative aspects of the treatment program. Many participants increased their self-efficacy and were able to gain momentum on many tasks and assignments that had been deferred in their everyday life. Meanwhile, several participants lacked motivation to complete the exercises, had too many conflicting commitments, and were unable to keep up with the tight treatment schedule. Hence, the results suggest that Internet interventions for procrastination could profit from individual tailoring, shorter and more manageable modules, and that the content need to be adapted to the reading comprehension and motivational level of the participant.

1. Introduction

During the last two decades extensive research has been performed with regard to treatment interventions delivered via an online interface (Andersson, 2014). According to a recent meta-analysis (Olthuis et al., 2015), Internet interventions are deemed promising and cost-effective in the treatment of a wide range of psychiatric disorders and somatic conditions, for instance, social anxiety disorder (Boettcher et al., 2013), depression (Kivi et al., 2014), panic disorder (Carlbring et al., 2006), tinnitus (Hesser et al., 2012), and irritable bowel syndrome (Ljótsson et al., 2011). Furthermore, it has been suggested that guided Internet-based cognitive behavior therapy (ICBT) and face-to-face treatment produce equivalent overall effects (Andersson et al., 2014). Current research has also investigated the distribution of treatment interventions via a smartphone with encouraging results (H. Ly et al., 2014; Dagöö et al., 2014), extending the usefulness of Internet interventions by providing non-intrusive and evidence-based methods in the everyday life of the general population. Also, several recent clinical trials have explored the potential of using treatment interventions delivered via the Internet for personal concerns and behavioral problems that can be debilitating, but do not necessarily warrant more immediate care, such as, stress management for middle managers (K.H. Ly et al., 2014), social skills training for young adults (Lehenbauer et al., 2013), and behavioral training in migraine self-management (Kleiboer et al., 2014).

However, apart from the large number of clinical trials examining the efficacy and effectiveness of Internet interventions, qualitative research concerning the experiences of undergoing treatment interventions delivered via the Internet is still scarce (Ly et al., 2015). Bendelin et al. (2011) conducted interviews with twelve participants with regard to their overall impression of ICBT for depression, revealing differences in terms of their motivational level to complete the reading and exercises included in the treatment program. Particularly, those participants who took responsibility for their involvement and attributed progress to their own efforts benefitted more from the treatment interventions (Bendelin et al., 2011). In a similar manner, Olsson Halmetoja et al.

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(2014) investigated the experiences of going through ICBT for social anxiety disorder at a four-year follow-up, indicating that most participants had a positive attitude towards the treatment program, but that some also perceived the content as hard to comprehend and the exercises as emotionally challenging, while others expressed a need for additional support and feedback from their therapist. Moreover, Rozental et al. (2015) explored the incidence and characteristics of negative effects occurring during the treatment period of four different clinical trials of ICBT, providing evidence for the existence of events that were perceived as negative or unwanted. For instance, participants reported experiencing deterioration as well as symptoms unrelated to the condition targeted by the treatment program, some of which were connected to gaining more insight about their problem, but also feeling pressured by the tight treatment schedule and having difficulties performing many of the exercises.

Using qualitative research as a way of investigating how participants themselves apprehend and use Internet interventions is an important issue, as it could help identify the advantages and disadvantages of the treatment format (Bendelin et al., 2011), and distinguish factors that might increase adherence and decrease the number of drop-outs (Rozental et al., 2014a). Prior investigations have, for instance, found that Internet interventions could benefit from tailoring the frequency and type of feedback to the needs and characteristics of the specific participant (Svartvatten et al., 2015), the use of reminders and motivational prompts to help increase compliance (Donkin and Glozier, 2012), the provision of an intuitive and more interactive interface (Beattie et al., 2009), and the adaption of texts and procedures to account for individual differences in reading comprehension and computer skill (Gerhards et al., 2011). In addition, qualitative research is also of special interest in the case of testing treatment interventions that have not previously been evaluated or involving a novel condition that has not yet been thoroughly examined, particularly as it can further the understanding of mediators of change and help develop more effective treatment interventions (Andersson et al., 2009). Hence, in the current study, qualitative research was used to explore the responses to open-ended questions distributed at the post-treatment assessment of the first clinical trial of ICBT for procrastination (Rozental et al., in press). Procrastination is defined as "to voluntarily delay an intended course of action despite expecting to be worse off for the delay" (Steel, 2007, p. 66), and is considered to be a common self-regulatory failure that can affect personal functioning and well-being (Stead et al., 2010). Finding treatment interventions that can help people deal with their difficulties with procrastination is therefore warranted, and could, in turn, prevent the manifestation of more severe mental health issues (Sirois and Pychyl, 2013). However, as noted in a recent review (Rozental and Carlbring, 2014), research on procrastination has primarily involved the investigation of different personality constructs believed to be associated with the degree of severity, e.g., a high degree of impulsiveness and a lack of self-control, while paying less attention to the efficacy of treatment interventions for procrastination. Principles derived from cognitive behavior therapy (CBT) are often referred to as helpful, but have only been explored in a few single case-studies and group therapies without the use of randomization or standardized outcome measures (Rozental et al., in press), limiting the understanding of what relieves difficulties of procrastination. Similarly, the impression of different treatment interventions for procrastination is largely unknown (Klingsieck, 2013), making it imperative to investigate in order to distinguish what factors are seen as helpful and unfavorable by the participants themselves. Furthermore, as prior research of ICBT has indicated, guided self-help seems to be beneficial for treatment outcome (Arnberg et al., 2014), revealing a strong correlation between the therapist's input and progress during treatment (Palmqvist et al., 2007). The importance and type of guidance have also been explored using qualitative research in relation to, for instance, depression (Svartvatten et al., 2015), and generalized anxiety disorder (Paxling et al., 2013), but has not yet been examined with regard to procrastination. On the one hand, guided self-help could be regarded as an external source of control and should therefore increase adherence and the efficacy of ICBT for procrastination. On the other hand, the results of Rozental et al. (in press) did not find any differences between guided and unguided self-help, making the role of therapist support in the treatment of procrastination less clear, warranting further research. Thus, the purpose of the current study was twofold: 1) among self-referred participants receiving ICBT for procrastination during a treatment period of ten weeks, and receiving guided self-help or unguided self-help, what are the experiences of undergoing treatment interventions delivered via the Internet? 2) What factors of the treatment program were perceived as beneficial and disadvantageous in terms of managing procrastination?

2. Material and methods

2.1. Participants

The current study was part of a clinical trial examining the efficacy of ICBT for procrastination (Rozental et al., in press). Participants were recruited through advertisements and reports in the Swedish media, as well as information on social networks. Eligibility was assessed via an online screening process consisting of self-report measures investigating the severity of procrastination, depression, anxiety, and degree of quality of life, as well as self-disclosed information regarding the participants' sociodemographics and problems with procrastination (Rozental et al., 2014b). The inclusion criteria included difficulties primarily associated with procrastination, i.e., a minimum of 32 points on the Irrational Procrastination Scale (Steel, 2012), and not having any other ongoing psychiatric condition warranting more immediate care, e.g., severe depression, suicidal ideation, bipolar disorder, misuse of drugs or alcohol dependency, psychosis or schizophrenia, and attention-deficit/hyperactivity disorder. In addition, a Swedish citizenship and fluency in Swedish were required, as well as having a computer with access to the Internet. No concurrent psychological treatment was permitted, and in the case of taking any psychotropic medication the dosage had to be stabilized twelve weeks prior to entering the treatment. Detailed information regarding the inclusion and exclusion criteria as well as the self-report measures can be found in Rozental and Carlbring (2013).

In total, 150 participants were deemed eligible for inclusion in the clinical trial and randomized into three conditions: 1) guided self-help, receiving support from a master's degree-level therapist, 2) unguided self-help, receiving no support, and 3) wait-list control, receiving unguided self-help after the first treatment period had ended. For the purpose of the current study, the participants were distributed open-ended questions related to their experiences of undergoing ICBT for procrastination at the post-treatment assessment. However, because the open-ended questions were optional to complete, only 75 participants (50%) are included in the analysis of the current study. A full description of the participants' sociodemographics, divided by responders and non-responders to the open-ended questions, can be obtained in Table 1.

Potential differences between responders and non-responders to the open-ended questions were examined using two-sided independent *t*-tests and Pearson χ^2-tests. Results indicated that no difference was obtained with regard to the gender distribution of the two groups, $\chi^2\,(1) = 0.97$, $p = .33$, and that no difference was observed in terms of age, $t(148) = 1.24$, $p = .22$. Furthermore, no difference was found in terms of the allocation of the two groups between guided self-help and unguided self-help, $\chi^2\,(1) = 0.48$, $p = .49$. Also, possible differences related to the severity of procrastination, depression, anxiety, and degree of quality of life at post-treatment assessment were assessed, indicating that there were no differences on any of the self-report measures, $t(104) = -0.60$ to 0.17, $p = .55$ to .98, except for quality of life, $t(104) = 2.09$, $p = .04$. However, due to multiple comparisons,

Table 1
Sociodemographic characteristics of participants at baseline.

Baseline characteristic	Full sample ($n = 150$)	Responders ($n = 75$)	Non-responders ($n = 75$)
Gender: n (% female)	68 (45.3)	37 (49.3)	31 (41.3)
Age (years): M (SD)	39.46 (10.1)	40.48 (10.2)	38.44 (10)
Marital status: n (%)			
Single	41 (27.3)	18 (24)	23 (30.7)
Married/Partner	101 (67.3)	53 (70.7)	48 (64)
Divorced/Widow	6 (4)	2 (2.7)	4 (5.3)
Other	2 (1.3)	2 (2.7)	0 (0)
Children: n (% yes)	74 (49.3)	37 (49.3)	37 (49.3)
Cohabitant: n (% yes)	99 (66)	49 (65.3)	50 (66.7)
Highest educational level: n (%)			
Middle school	2 (1.3)	0 (0)	2 (2.7)
High school/college	52 (34.7)	26 (34.7)	26 (34.7)
University	89 (59.3)	45 (60)	44 (58.7)
Postgraduate	7 (4.7)	4 (5.3)	3 (4)
Employment: n (%)			
Unemployed	10 (6.7)	5 (6.7)	5 (6.7)
Student	18 (12)	6 (8)	12 (16)
Employed	99 (66)	54 (74)	45 (60)
Self-employed	21 (14)	9 (12)	12 (16)
Retired	2 (1.3)	1 (1.3)	1 (1.3)
Sick leave: n (%)	1 (0.6)	1 (1.3)	0 (0)
Previous psychological treatment: n (% yes)	59 (39.3)	31 (41.3)	28 (37.3)
Previous psychotropic medication: n (% yes)	30 (20)	16 (21.3)	14 (18.7)

the significance level was adjusted accordingly. Hence, $p = .008$ was required in order to detect any differences, demonstrating that responders and non-responders did not differ from each other.

2.2. Treatment

The treatment interventions used in the clinical trial were derived from principles in CBT, which have been proposed to be effective in managing procrastination, for instance, behavioral activation, behavioral experiments, cognitive restructuring, stimulus control, self-assertiveness training, among others (Rozental and Carlbring, 2014). The efficacy of the treatment interventions, however, has not been explored in any clinical trial prior to Rozental et al. (in press), making the current study the first one to investigate the experiences of undergoing ICBT for procrastination. The treatment interventions involved ten modules, containing 166 pages of text and graphics, as well as an average of three exercises to be completed weekly throughout the treatment period, that is, ten weeks in total. For the participants receiving guided self-help, the completed exercises were submitted and reviewed by their therapists before being given feedback on their progress, e.g., reinforcing behavior change and correcting any misunderstanding regarding the rationale, similar to the feedback provided in other clinical trials of ICBT (Andersson et al., 2013). For the participants receiving unguided self-help, the modules had to be completed without any aid, with one module being released every week together with a generic summary of the treatment content. An extensive description of the treatment interventions can be obtained in Rozental and Carlbring (2013).

2.3. Procedure

A website was created to inform participants of the clinical trial (www.prokrastinera.se), containing details regarding the inclusion and exclusion criteria, ethics, written informed consent, randomization procedure, treatment interventions, withdrawal, study supervisors, as well as the therapists. In order to be assessed for eligibility, the participants were required to register and log on to a secure interface that used electronic identification, i.e., SSL certificates, completing an automated online screening process that included all self-report measures, sociodemographics, and open-ended questions regarding their problems with procrastination. Upon ending the treatment period, the participants were encouraged to fill out a post-treatment assessment comprised of the same self-report measures, as well as ten optional open-ended questions regarding the experiences of undergoing ICBT for procrastination (see Appendix A). Because all of the responses were imputed directly by the participants on the secure interface, the risk of data loss or data distortion was minimized (Thorndike et al., 2009), and no further transcription or processing was required in order to analyze the material.

2.4. Analysis

The responses provided by the 75 participants consisted of 18.650 words that were explored using a qualitative method. For the purpose of the current study, thematic analysis was chosen due to its ability to identify and systematically investigate recurrent themes located in a given set of data (Schilling, 2006). Thematic analysis is particularly useful as an inductive approach as the results do not have to fit a specific theoretical framework, making it especially suitable to examine the individual's own understanding or attitude towards a concept or phenomenon. Thematic analysis has, for instance, previously been used in relation to ICBT in the study of the participants' experiences of a smartphone-based treatment for depression (Ly et al., 2015), women's attitudes towards treatment engagement and adherence in a behavioral activation treatment for postnatal depression (O'Mahen et al., 2015), as well as patients' perspectives of a self-management program for irritable bowel syndrome symptoms (Tonkine-Crine et al., 2013).

The steps suggested by Braun and Clarke (2006) for performing a thematic analysis were used throughout the analytic process: 1) the complete dataset was read repeatedly to get an overview of the content and register initial ideas, for instance, “not experiencing any progress reinforces the participants' own negative self-image”; 2) the responses were coded using the actual words by the participants until all responses carrying similar meaning in the dataset were identified. The codes were named so that it would reflect its semantic content, that is, responses related to gaining knowledge about procrastination was defined as “insight”. Responses that contained a number of different semantic contents were given multiple codes; 3) codes were grouped together into potential themes, for instance, time-management issues, conflicting commitments, and avoiding the treatment interventions were included in the theme “procrastinating the treatment program”; 4) the themes were tested against the dataset several times by returning to the responses, rereading and reformulating the themes; 5) the

themes were refined and divided into sub-themes in order to create a clear and coherent structure, e.g., "positive aspects", reflecting the benefits of the treatment program. The formulations of the final themes and sub-themes were made so that they reflected the meaning captured by the participants' responses, e.g., "lacking motivation", and 6) the results from the thematic analysis was presented using excerpts and a description of each theme. The results were finally related to the aims of the current study and prior research of Internet interventions and procrastination, and the main theoretical findings were discussed. The thematic analysis was initially performed by the third author of the current study, with the first and second authors reviewing the results in order to cross-validate the themes and sub-themes that emerged. Disagreements were resolved by discussing the issues together and reexamining the dataset, and in those instances where the interpretation, inclusion, or definition of codes, themes, and sub-themes diverged, revisions were made so that a consensus could be reached. Both the first and second authors are experienced in conducting qualitative research, and have together with the fourth author great knowledge of the implementation of Internet interventions and the treatment of procrastination, enabling consultation by the third author throughout the analytic procedure.

2.5. Ethics

The clinical trial, which the current study is a part of, received ethical approval from the Regional Ethical Board in Stockholm, Sweden (Dnr 2013/974-3175), and was registered as a clinical trial on ClinicalTrials.gov (NCT01842945). The anonymity of the participants was ensured using the auto-generated identification codes that were received when registering and completing the online screening process, and great consideration has been made in order to make sure that no information presented in the current study could be used to identify a specific participant.

3. Results

The thematic analysis of the participants' responses yielded three themes as well as eleven sub-themes, all of which can be found in Table 2: *Positive aspects* (*Increased self-efficacy*, *Gaining momentum*, and *Acceptance*), *Negative aspects* (*Hopelessness*, *Lacking motivation*, *Burden*, and *Postponing the treatment*), and *The treatment circumstances* (*Longing for something else*, *Individual tailoring*, and *The treatment material*).

3.1. Positive aspects

In general, most of the participants perceived their experiences of undergoing ICBT for procrastination as something positive, and many felt content with the treatment interventions. In particular, several participants described that they had become more aware of their behavior during the treatment period, and that they were relieved by the fact that there existed a name and an explanation for their tendency to put off tasks and assignments. The theme Positive aspects therefore reflects the benefits of the treatment, as well as how it affected the participants on a day to day basis.

Table 2
Themes and sub-themes emerging from the dataset.

Themes	Sub themes
Positive aspects	Increased self-efficacy
	Gaining momentum
	Acceptance
Negative aspects	Hopelessness
	Lacking motivation
	Burden
	Postponing the treatment
The treatment circumstances	Longing for something else
	Individual tailoring
	The treatment material

3.1.1. Increased self-efficacy

In one of the sub-themes related to the positive aspects of the treatment, the participants conveyed a sense of reassurance and stronger belief in themselves. Those who were satisfied with the treatment interventions expressed that they now felt more hopeful about being able to tackle procrastination in their everyday lives. For many of the participants it was also a positive experience to complete the whole treatment program, which, in turn, resulted in a positive sense of self and increased self-efficacy. The treatment not only made them understand and face their difficulties, it also helped them come to terms with their problems, regain confidence, and view themselves as something else other than lazy or worthless, as evident in the following response:.

> "*I have in some way gained more hope in life, hope that this is a problem that I can change … I will not destroy my career by procrastinating, I now have reassurance and faith that I am going to be able to handle this. Of course, I still have problems, but to a lesser extent than I had when I began this study. I will keep on practicing, and I believe that I will come even further in my struggle against procrastination.*"
>
> [Female participant, 35 years old.]

3.1.2. Gaining momentum

Prior to entering the treatment, the participants described some of the difficulties that they had encountered in life due to procrastination, e.g., taking care of their family, lack of self-esteem, decreased well-being, and problems at work or school. During the treatment period, however, they received both knowledge and skills in terms of changing their behavior. Thus, many of the participants declared that they were now able to implement more adaptive strategies, which, in turn, made it possible for them to gain momentum and cease with some of the procrastination they had been struggling with. As one participant explains:

> "*Absolutely. Even though I still have a long way to go. The anxiety or whatever it was that prevented me from completing my assignments is not there anymore. Now it's much easier to start working with a task. I think it has a lot to do with the advices and exercises like for instance setting up small goals for myself and receiving more immediate rewards.*"
>
> [Female participant, 30 years old]

As a consequence of being able to initiate and complete more tasks and assignments in their everyday life, a number of the participants experienced that the amount of negative emotions caused by their procrastination also declined, something that was considered an additional benefit of the treatment interventions, as expressed below:.

> "*That I have been able to decrease the procrastination at work and at home, which has lead to less worry, stress and arguments.*"
>
> [Female participant, 30 years old]

3.1.3. Acceptance

For many of the participants, the increased awareness of their problems also resulted in a greater understanding of themselves. In particular, being able to identify and label your actions as procrastination rather than personal deficits was perceived as an eye-opener for several of the participants. Thoughts and feelings of inadequacy and self-loathing were replaced with a more tolerant attitude, which, in turn, helped them to manage their procrastination to a greater extent. A few participants also began to accept that they might still end up

avoiding some tasks and assignments, but that it does not have to reflect who you are as a person. One of the participants describes this in the following way:

"*Even though I haven't changed my behavior entirely, I've come to realize that it might not always be my fault when I postpone things, I no longer feel as bad as I did before.*"

[Female participant, 34 years old]

3.2. Negative aspects

During the treatment period, a number of the participants experienced different types of negative effects, which, in turn, affected their motivation to complete the modules and continue with the treatment program. For some of the participants, this was characterized by difficulties keeping up with the pace of the treatment, something that only reminded them of their problems and resulted in self-contempt. For others, the length of the texts or the nature of the exercises were perceived as overwhelming, creating a situation where they started to procrastinate the very treatment that might help them improve. The theme Negative aspects thus reflects some of the problems encountered by the participants, as well as how it affected their ability to carry out the treatment program.

3.2.1. Hopelessness

In one of the sub-themes related to the negative aspects of the treatment, several participants described their disappointment in not having improved during the treatment period. For them, not experiencing any positive effects confirmed an already battered self-esteem, rather than being attributed to the treatment interventions. This, in turn, only seemed to reinforce their conviction that procrastination is a personality trait that is impossible to change. Some of the participants also argued that the post-treatment assessment was distributed too soon after the treatment period had ended, which meant that it was unable to capture any change that might have occurred. One of the participants illustrates this in the following way:

"*Unfortunately I think that it made me sink even lower because I failed to complete it in time, and therefore I have, yet again, reinforced my inability to finish things.*"

[Female participant, 28 years old]

3.2.2. Lacking motivation

A number of the participants had a hard time completing the exercises and adhering to the treatment program. For some of them, the motivation was already lacking from the start, resulting in a situation where they were unable to gain momentum and quickly fell behind the tight treatment schedule. For others, their motivational level decreased gradually during the course of the treatment, either because specific modules felt unrelated to their ongoing difficulties, such as, self-assertiveness training, or because the length of the texts were too comprehensive, as exemplified below:.

"*I was unable finish all of the chapters because I entered a period where I didn't feel like doing anything at all. Completing chapter 7 was hard for me because of the exercises, so I procrastinated it until the treatment program had finished.*"

[Male participant, 34 years old]

3.2.3. Burden

During the treatment period, a few participants decided to discontinue the treatment program, either by becoming passive bystanders or by actively dropping out. Hence, a number of the participants were still able to take part of the texts and exercises that were provided in the weekly modules, but stopped sending them to their therapists or choose not to log on to the secure interface. Others declared that they no longer wanted to participate, and were therefore considered dropouts. As described in their responses, the main reason for disengaging from the treatment program was a lack of time to keep up with the tight treatment schedule, or that the amount of work required to complete the exercises was perceived as burdensome. In most of the cases, the participants felt that the treatment program started competing with their everyday commitments, meaning that they had to choose between their treatment and other tasks and assignments, as expressed below:

"*Too much reading material, it was a bit difficult to find the right opportunity when you work full time and have a lot of other things to do.*"

[Female participant, 28 years old]

3.2.4. Postponing the treatment

In comparison to having difficulties engaging in the treatment program due to other competing activities, a number of the participants also started to postpone the treatment itself. As indicated by their responses, most of these participants attributed their lack of effort to their ongoing problems with procrastination. This led them to feel guilty about not taking part in the treatment content, but, it was, however, insufficient to raise their motivational level and start working on the exercises. In turn, the lack of progress became yet another sign of their inability to change their behavior, turning procrastination into a self-fulfilling prophecy. One of the participants depicts this in the following way:

"*… a treatment for procrastination is bound to result in procrastination.*"

[Female participant, 33 years old]

3.3. The treatment circumstances

Apart from the positive and negative aspects that were associated with the participants' experiences of the treatment program, a number of responses were also related to specific issues surrounding the content and procedures that were used. Overall, a majority of the participants were pleased with the texts and exercises provided in the modules. In particular, the content was perceived as interesting and scientifically sound. However, the amount of reading that was required each week was seen as too comprehensive and time-consuming, affecting their motivation to continue. In addition, different participants had different opinions with regard to the support that they received from their therapists, wanting more or less structure and encouragement. Alternatively, in the case of having been allocated to unguided self-help, several participants longed for the guidance and feedback from a therapist. The theme *The treatment circumstances* therefore includes some of the concerns raised by the participants themselves with regard to the treatment program.

3.3.1. Longing for something else

Prior to commencing the treatment period, the participants were randomly assigned to receive either guided self-help or unguided self-help. Thus, not all participants were able to complete the treatment program with the aid of a therapist, resulting in a situation where they longed for the feedback and support from another person. Difficulties understanding the texts and completing the exercises were quickly attributed to the lack of a therapist, and several participants expressed that they would have done better with an external source of control. For those not experiencing any progress on their own, the allocation to unguided self-help became associated with an idea of having been assigned to an inferior type of treatment, where the aid from a therapist

would have helped them manage their difficulties with procrastination more adaptively, as illustrated below:

"*I think it would have helped to have someone that controlled or at least asked if I had read the texts and completed the exercises. It would have given me more motivation. Particularly for someone who cannot trust her own.*"

[Female participant, 34 years old]

Receiving guided self-help was, however, not always seen in a positive light, and could in fact turn out to be a stressful experience. Instead of being a tool to help instigate behavior change, the feedback from a therapist became associated with more work, resulting in less motivation, as described by one of the participants:.

"*I felt that it was stressful that he gave me so immediate feedback. As soon as I posted a reply I got feedback. There was no time to relax. I never felt good about finishing an exercise, because as soon as I finished one — Bam! Another one!*"

[Female participant, 36 years old]

Some of the participants also expressed that they wanted another type of feedback than what they were able to obtain during the treatment program, or that the feedback included in the guided self-help did not suffice. For example, a number of participants suggested that it would have been beneficial to talk to others in the same situation, and that it could have helped their motivation to meet their therapist face-to-face, as demonstrated below:

"*Since it's completely voluntary I've been unable to get my ass in gear, and the Internet-therapist can't really force you to do it. Had I met the therapist personally I would probably have been more ashamed of falling behind in the treatment program, which would have helped me do it.*"

[Female participant, 33 years old]

3.3.2. Individual tailoring

Several participants experienced the treatment program as being too manualized, and that both the treatment interventions and the feedback were generic in nature rather than tailored to their individual needs. A few participants responded that they longed for more personalized comments on their exercises that would reflect the unique set of factors that were responsible for and maintained their difficulties with procrastination. In comparison to getting a theoretical understanding of your problems, these participants asked for more concrete advice and a type of support that could have helped them to understand themselves and their behavior better. One of the participants explains this in the following way:

"*The internet therapist has not been able to make the treatment more individualized … I wish that the therapist would had been better able at helping me analyze my particular problem, and to help me find strategies for how I, with my own limitations and quirks, can implement the different methods that are addressed in the treatment.*"

[Male participant, 28 years old]

3.3.3. The treatment material

In terms of the treatment material, most of the participants described themselves as pleased with the texts and exercises provided. In particular, the information regarding what maintains procrastination was perceived as interesting and credible. However, a number of participants also mentioned that the modules were too exhaustive and time-consuming, in turn affecting their motivation to complete their reading and exercises. In addition, a few participants felt frustrated by the fact that some of the treatment material needed to be proofread, and that parts of the texts were both hard to comprehend and a bit academic, as demonstrated below:.

"*It was great, it felt sound and scientific. But sometimes they referred you to the wrong sections. 'In chapter x you will read about y', but that wasn't always true, and sometimes the order of appearance was all wrong, for example, 'you have just read about x' or 'later on, you will read about y', but that didn't always turn out to be correct. It bothered me a bit that they hadn't proofread everything.*"

[Female participant, 34 years old]

4. Discussion

The current study investigated the experiences of undergoing ICBT for procrastination with the purpose of understanding how the treatment interventions were perceived, and to gain knowledge of what factors are seen as beneficial as well as disadvantageous in terms of managing difficulties with procrastination. In terms of the positive aspects, the responses indicated that many of the participants gained momentum and increased their self-efficacy as a result of the treatment interventions. This is in line with the theoretical concept of efficacy performance spirals (Lindsley et al., 1995), postulating that the ability to achieve a desired outcome stems from prior experience of a similar situation, causing upward or downward spirals of performance. Hence, for those participants who lacked self-efficacy due to a long history of procrastination, the treatment interventions appear to have helped them regain confidence and implement more adaptive strategies in fulfilling their everyday commitments. In addition, this seems to have had a positive effect in terms of the stress and anxiety that were experienced by a number of the participants, in line with previous findings concerning the relationship between procrastination, stress, and well-being (Sirois, 2004, 2007). However, whether the increased self-efficacy that was observed in the current study can be attributed to a cognitive shift or the behavior change made during the treatment period warrants further investigation. For some, gaining insight about what maintains procrastination appears to have contributed to a greater sense of control and acceptance of the condition that the participant is struggling with. For others, completing the reading and exercises included in the treatment program seems to have improved their motivational level so that it became possible to perform more of their everyday commitments. Allowing the participants to gain momentum and raise self-efficacy might therefore be important to explore in future clinical trials of ICBT for procrastination, possibly by distributing less extensive modules during the treatment period in order for the reading and exercises to become more manageable and facilitate a feeling of accomplishment.

In terms of the negative aspects, the responses revealed that some of the participants experienced difficulties adhering to the treatment program due to non-response as well as a lack of motivation. In particular, benefitting from the treatment interventions seems to have been closely related to the participants' experience of progress. For those who were unable to complete their reading or exercises, this was interpreted as additional evidence for their inability to overcome procrastination, affecting their self-efficacy negatively. However, as several responses also demonstrate, the motivational level of some participants may have been low from the start, making them more likely to remain passive throughout the treatment period. This is similar to the results of Olsson Halmetoja et al. (2014), suggesting that participants with the highest degree of motivation when the treatment period commences are probably those who benefit most from Internet interventions. Hence, identifying participants exhibiting a limited degree of activity and tailoring the treatment interventions might reverse a negative treatment trend. However, in comparison to other treatments delivered via the Internet, participants experiencing difficulties with

procrastination may also differ with regard to their expectations of the treatment program. As a number of responses seem to reveal, many participants perceived the treatment interventions as less prioritized due to conflicting commitments in their everyday life, resulting in the postponement of the treatment program in order to complete more pressing matters. In other words, there may have existed a belief that the treatment interventions was intended to get them to complete tasks and assignments in their everyday life, rather than becoming better at managing procrastination in general. Addressing this issue could thus become essential in future clinical trials of ICBT for procrastination, so that the primary aim of the treatment program involves helping the participants deal with their ongoing difficulties, while, at the same time, allowing progress on other commitments to maintain motivation.

Apart from the positive and negative aspects that were experienced by the participants, the responses also included issues that were directly related to the circumstances surrounding the delivery of the treatment program. Overall, a majority of the participants were satisfied with the treatment interventions provided in the modules. However, a number of the participants raised concerns about the content and procedures that proved to be detrimental for their motivational level. In particular, the texts and exercises were sometimes perceived as too comprehensive and time-consuming, resulting in feelings of stress and anxiety, and, in turn, the delay of the treatment program. This is comparable to the findings of Martinez et al. (2007), highlighting the importance of adapting the self-help material to the reading level of the individual participant, and Donkin and Glozier (2012), suggesting that time-constraints and competing obligations can have a negative impact on adherence in Internet interventions. However, given the nature of procrastination, that is, purposefully postponing the initiation and completion of one's commitments, participants undergoing ICBT for procrastination might be particularly prone to becoming overwhelmed and stressed out by the treatment interventions, resulting in a greater number of drop-outs or adverse events. Since some of the participants also reported experiencing conflicting commitments during the treatment program, this issue should be given greater attention in future clinical trials of ICBT for procrastination in order to maintain motivation and prevent adverse events from occurring during the treatment period (c.f., Rozental et al., 2014a). Furthermore, it could be important to distribute the treatment interventions in smaller and more convenient modules so that participants do not become overwhelmed. Similarly, administering the treatment interventions as well as receiving reminders and feedback via a smartphone could potentially help the participants complete their reading and exercises to a greater degree (H. Ly et al., 2014; Dagöö et al., 2014). In addition, a number of the participants also reported problems with the procedures used during the treatment period, particularly with regard to the amount and frequency of feedback that they received. For some, the allocation to unguided self-help seem to have been perceived as being assigned an inferior form of treatment which affected their motivation to continue with the treatment program. This is in line with the overall evidence for ICBT, lending greater support and larger effect sizes for guided self-help (c.f., Andersson et al., 2014). For others, the feedback was regarded as haunting, being interpreted as aversive rather than reinforcing, as they were not able to savor the experience of actually completing something. Hence, tailoring the feedback to the needs and characteristics of the specific participant might therefore prove crucial in order to improve adherence in future clinical trials of ICBT for procrastination (Bendelin et al., 2011).

The current study has a number of limitations that need to be considered in reviewing the results. First, since the open-ended questions concerning the participants' experiences of undergoing ICBT for procrastination were optional, there might have been circumstances that distinguished responders from non-responders. Of the 150 participants who were included in the clinical trial, 75 (50%) completed the open-ended questions. Statistical analyses were performed in order to examine any possible differences with regard to age, gender distribution, allocation to guided self-help and unguided self-help, as well as the self-report measures used at the post-treatment assessment, without obtaining any dissimilarities. However, there may have been other sociodemographics or outcome variables that differed between the groups, but that were not explored. Second, open-ended questions are susceptible to social desirability; hence, some of the participants may have withheld important information about their experiences due to either a positive or negative treatment outcome (Krosnick, 1999). In addition, the wording of some of the open-ended questions may also have influenced the participants' responses in a positive way, for instance, “valuable”, “pleased”, and “satisfied”, which, in turn, could have affected the results of the thematic analysis. This might have been circumvented by the use of systematic interviews with selected participants in terms of different treatment outcomes, similar to the type of qualitative research that has been conducted by, for instance, Olsson Halmetoja et al. (2014). Third, the thematic analysis was performed without the use of any measure of inter-rater reliability with regard to the coding of the dataset. Thus, the investigation of the responses may have been affected by errors made during the analytic process. However, the first and the second author reviewed the results of the third author in order to cross-validate the themes and subthemes that emerged, and any methodological issues as well as difficulties that arose were discussed jointly. Furthermore, information regarding the recruitment of the participants and their sociodemographics, procedures used during the thematic analysis, and excerpts of the original responses were provided to increase transparency, enhancing the credibility and transferability of the results (Sandelowski, 2000). Fourth, albeit similar to many other clinical trials of ICBT, the current study investigated the responses from participants that received Internet interventions for a novel condition that has not previously been explored. There may therefore have been circumstances that differed in the delivery of the treatment interventions, as compared to other conditions or psychiatric disorders, affecting the experiences of the participants and limiting the generalizability of the results. However, comparing the findings in the current study to similar investigations using qualitative research allows an assessment of its plausibility, and, in turn, whether the conclusions that have been drawn can be considered valid.

5. Conclusion

The current study furthers the understanding of how participants themselves perceive their experiences of undergoing ICBT for procrastination, as well as what factors were regarded as beneficial and disadvantageous in terms of managing their difficulties. The results revealed both positive and negative aspects of the treatment program, indicating that it may be important to quickly gain momentum and raise self-efficacy in order to benefit from the treatment interventions. In addition, the results also suggest that it might be essential to deliver the texts and exercises in more manageable parts to improve adherence, as well as tailor the feedback to the needs of the individual participant.

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Appendix A

1. In general, how satisfied are you with your treatment?
2. a. During your treatment, you were not provided with an Internet therapist (in other words, you were left to complete the treatment

on your own): How do you think that might have influenced your treatment?
2. b. During your treatment, you were provided with an Internet therapist: How do you think the cooperation with your Internet therapist has worked? What did he/she do that you perceived as positive? What could he/she have done differently?
3. How do you perceive the quality of the texts?
4. What did you think about the readability of the texts (easy/hard to understand)?
5. How pleased are you with the pace of the treatment (the intensity and distribution of the modules in relation to the length of the treatment)?
6. How demanding do you feel that the treatment has been? Please elaborate your answer!
7. How valuable do you believe that this treatment has been for you?
8. Located below you will find three statements that might help you describe how you experienced your treatment. Please complete these statements with your own words:
   a. The thing that I'm most satisfied with in terms of my treatment is …
   b. The thing that I believe has been most valuable in my treatment is …
   c. The thing that I am most displeased with (and how it could be improved) is …
9. Has the treatment helped you find a better way of managing your problems?
10. Do you experience that you have fewer problems with procrastination after the treatment? Please elaborate your answer!

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