ELSEVIER

Contents lists available at ScienceDirect

Internet Interventions



journal homepage: www.elsevier.com/locate/invent

Experiences of a therapist-guided internet-delivered intervention for hazardous and harmful drinking. A qualitative study

Linn-Heidi Lunde^{a,*}, Siv-Elin Leirvåg Carlsen^a, Arne Repål^b, Tine Nordgreen^{c,d}

^a Department of Addiction Medicine, Haukeland University Hospital, Bergen, Norway

^b Division of Mental Health and Addiction, Vestfold Hospital Trust, Norway

^c Division of Psychiatry, Haukeland University Hospital, Bergen, Norway

^d Department of Global Public Health and Primary Care, University of Bergen, Norway

ARTICLE INFO	A B S T R A C T		
<i>Keywords:</i> Hazardous alcohol use Participant experiences Therapist-guided internet-based cognitive behaviour therapy	Background: Alcohol is the third leading risk factor for burden of disease in the world, causing significant health damage to the individual as well as costs to the surroundings and society as whole. Internet-delivered psychological interventions may help the individual to address alcohol consumption at an early stage before it develops into more serious problems. There is a need to investigate how participants experience internet-delivered interventions for hazardous and harmful drinking to optimize its usefulness in the target population. <i>Methods</i> : The present study was part of an open pre-post pilot trial to evaluate the feasibility and acceptability of a therapist-guided internet-delivered cognitive behavioural intervention for hazardous and harmful alcohol use. The aim was to investigate participants' experiences of the intervention and the ways in which the intervention helped them to address their alcohol consumption. Fifteen participants were selected from the open pre-post trial ($n = 32$), and semi-structured interviews were conducted immediately after participants had completed the treatment. The interviews were analysed using Thematic Analysis. <i>Results</i> : The results indicate that most of the participants found the intervention to be useful. Participants reported that the intervention made them more aware of the consequences of excessive drinking and gave them tools to cope with their alcohol consumption. Among the perceived advantages were the flexibility and anonymity of the intervention and therapist support. Participants called for more individualisation of the treatment to meet individual needs. <i>Conclusions:</i> A therapist-guided internet-delivered intervention for hazardous and harmful drinking can help individuals to address their alcohol consumption and give them tools to cope with their drinking. Future studies should examine the feasibility of tailoring modules to individual needs.		

1. Introduction

According to the World Health Organization (WHO), alcohol is the third leading risk factor for burden of disease in the world (World Health Organization, 2018). Persistent harmful alcohol use causes health damage. Existing somatic health problems and mental symptoms such as anxiety and depression are exacerbated, and persistent drinking can affect cognitive skills (Caputo et al., 2012). For the individual, this means impaired function and quality of life (Rao et al., 2019). There are also psychosocial challenges such as conflicts in family relationships and reduced ability to work, costs to society like increased sickness absence and productivity loss, as well as costs related to treatment, crime and

law enforcement (Babor et al., 2010).

Although young people drink the most, studies show an increase in hazardous and harmful alcohol use among middle-aged and older adults, especially those between 50 and 70 years of age who drink more frequently than previous generations (Arndt and Schultz, 2015; Stelander et al., 2021). Age-related changes in metabolism or the body's ability to absorb, distribute and break down alcohol and drugs can contribute to even small amounts of alcohol causing intoxication and organ damage (Caputo et al., 2012). People over the age of 50 thus have a lower tolerance and are more vulnerable to the effects of alcohol compared to younger people.

Beck and colleagues (Beck et al., 1993) developed a cognitive

* Corresponding author at: Department of Addiction Medicine, Haukeland University Hospital, Post Office Box 1400, 5021 Bergen, Norway. *E-mail address*: linn-heidi.lunde@uib.no (L.-H. Lunde).

https://doi.org/10.1016/j.invent.2022.100543

Received 1 February 2022; Received in revised form 21 April 2022; Accepted 29 April 2022 Available online 1 May 2022

2214-7829/© 2022 The Authors. 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/).

behavioural framework to understand substance use problems and treatment of such problems nearly thirty years ago, and this framework has been further developed. Short interventions based on motivational interview (MI) and cognitive behavioural therapy (CBT) are now recommended treatment for alcohol misuse and have proven effective in lowering alcohol consumption (Miller and Wilbourne, 2002; McHugh et al., 2010). However, alcohol misuse is significantly undertreated and is generally associated with shame and guilt (World Health Organization, 2018). A significant proportion of people with substance misuse do not seek treatment and therefore do not receive the necessary help at an early stage (Hadjistavropoulos et al., 2021). There is a need for differentiated low-threshold health services that can help the person change drinking habits at an early stage and at the same time meet the person's desire for discretion and anonymity. Internet-delivered cognitive behaviour therapy (ICBT) is an approach that can increase access to treatment (Dear et al., 2015). ICBT meets the patients need for anonymity and includes the same elements as with regular face-to-face treatment. What distinguishes this approach from regular treatment is that the patient reads self-help modules on the internet, solves tasks and communicates with the therapist either via the internet or by phone. Meta-analyses conclude that ICBT is just as effective as traditional faceto-face treatment for anxiety and depression (Carlbring et al., 2018; Olthuis et al., 2016). Internet-delivered treatment has also been shown to be effective in various forms of substance misuse (Gainsbury and Blaszczynski, 2011; Moore et al., 2011), and a recently published systematic review shows that ICBT has a significant effect in reducing alcohol consumption (Hadjistavropoulos et al., 2020).

Qualitative research designs that describe patient perceptions and how they experience treatment have been proposed to improve ICBT for alcohol misuse (Hadjistavropoulos et al., 2021). Ekström and Johansson (2020) conducted a qualitative study interviewing 38 users of an Internet intervention based on CBT for problematic alcohol use. They concluded that several aspects are relevant when it comes to understanding what works for whom in ICBT. Furthermore, Darvell et al. (2015) conducted a qualitative exploration of Internet-based treatment for comorbid depression and alcohol misuse. The results showed that a major theme among participants was a wish for more individualization and therapists support.

Despite having proven efficacious in several studies, ICBT for alcohol misuse has not been broadly implemented within the health services (Hadjistavropoulos et al., 2021), mainly due to the variability in adherence and outcomes across studies (Hadjistavropoulos et al., 2021). Furthermore, there is still limited knowledge of how participants experience internet-delivered treatment (Fleischmann et al., 2017). Thus, there is a need for more qualitative studies.

The main aim of the current study was to examine participant experience from a therapist-guided internet-delivered cognitive behavioural treatment programme for hazardous and harmful alcohol use. This is the first ICBT programme for alcohol misuse developed and tested out in Norway. The current study was part of an open pre-post pilot trial to evaluate the feasibility and acceptability of the intervention (will be reported elsewhere).

2. Method

2.1. Participants and recruitment

Fifteen participants were selected from a pilot trial examining the feasibility and acceptability of therapist-guided ICBT for hazardous and harmful alcohol use. In the pilot trial, 32 self-referred participants were recruited from the general population in two regions in Norway (Western-Norway, and Eastern-Norway, respectively) through advertisement in social media and in newspapers. Both young adults, middle-aged and older adults were encouraged to participate. Potential participants underwent a screening interview by phone. To be eligible for the study, the participants had to be over the age of 18, score 8 or more on

the Alcohol Use Disorder Identification Test (AUDIT, Saunders et al., 1993), have access to a computer and have no severe psychiatric illness or severe substance use problems. The included participants were informed orally and in writing that they could be asked to take part in qualitative interviews after treatment completion. Participants then provided informed consent to participate in the study and were introduced to the treatment program by their therapist, either in person, by phone or by video link.

Participants in the current study were contacted shortly after they had finished the treatment programme between January and March 2021. They were randomly selected according to gender and age to ensure that both women, men and different age groups were represented in the sample. 15 participants agreed to participate, one declined. A more detailed agreement on the time and place of the interviews were made by the interviewers.

Table 1 presents the demographic characteristics of the selected participants. There were nine male participants and six female participants, in ages ranging from 22 to74 years with an average age of 53 years. The participants (n = 15) in the current study did not significantly differ regarding the demographic variables from the whole sample (N = 32) in the pilot study.

2.2. The therapist-guided ICBT programme

The intervention was a therapist-guided internet-delivered self-help programme developed by the third author of this article and based on principles from MI (Miller and Wilbourne, 2002) and CBT for substance use disorders (McHugh et al., 2010). Principles from MI were implemented at the beginning of the program and among other things, participants were asked to think about the pros and cons of drinking alcohol and why they wanted to change drinking habits. Furthermore, the intervention was inspired by ICBT interventions for anxiety and depression tested in clinical trials in Norway and later implemented in the health services (Nordgreen et al., 2018; Nordgreen et al., 2019). The ICBT consisted of nine modules distributed over nine weeks (Table 2). The participants gained access to the online platform via secure login (using Bank ID). Each module contained between 6 and 17 pages of text, including work sheets. The total number of pages in the program were 102. Participant activity like solving tasks and doing exercises was monitored by the therapist and the participants had to complete each module and homework assignment before continuing to the next module

In the first module, the participants received information about the association between thoughts, emotions, behaviour and alcohol, and they were encouraged to set individual goals for treatment. It was underlined that one can have different goals with treatment. Some want to be totally abstinent from alcohol, while others want help to reduce alcohol intake. The second and third modules contained information on

Table 1	
Participant demographic characteristics.	

Participant	Age	Gender	Married/cohabiting	University-level education
1	58	Male	Yes	No
2	52	Male	Yes	Yes
3	36	Male	Yes	Yes
4	74	Male	Yes	Yes
5	38	Female	No	Yes
6	69	Male	Yes	Yes
7	66	Female	Yes	No
8	48	Female	Yes	Yes
9	22	Female	No	No
10	74	Female	No	Yes
11	59	Female	Yes	No
12	72	Male	Yes	Yes
13	41	Male	Yes	Yes
14	30	Male	Yes	Yes
15	56	Male	No	Yes

Table 2

Content of modules.

Modules	CBT content
Module 1	The association between thoughts, emotions, behaviour, and alcohol
Module 2	How to resist the urge to drink
Module 3	Strengthen the ability to resist the urge for alcohol
Module 4	Non-alcoholic activities
Module 5	Alcohol and relationship with others
Module 6	Emotions and alcohol
Module 7	Alcohol and sleep
Module 8	Relapse prevention
Module 9	Summary and conclusion

typical challenging situations that can elicit or trigger the urge to drink alcohol, as well as providing exercises and techniques to strengthen the participants' ability to resist the urge to drink. The main themes in modules 4 and 5 concerned non-alcohol activities and information on the impact of alcohol on relationships and social functioning. In modules 6 and 7, the participants learned about the impact of alcohol on emotions and sleep, and the homework contained various strategies to cope with symptoms of anxiety, depression and sleep management. Module 8 provided information on relapse prevention and how to develop a prevention plan for more effective coping skills. A summary of the programme and main messages were provided in the ninth and final module.

The therapists in the current study were experienced clinicians trained in ICBT, and the participant and therapist had weekly contact via online messaging on the platform. Participants were informed both orally and in writing that the therapist's support was secondary to the self-help modules and limited to approximately 15 min per module per participant. The introduction to the treatment program was not included in the 15 min but came in addition. It was not a therapeutic conversation, rather first and foremost feedback and support on the exercises and tasks.

2.3. Interview procedure

A semi-structured interview guide was prepared by the first author and then evaluated by all authors. The interview guide contained 10 open-ended and exploratory questions (see appendix). Participants were asked about their individual goals for participating in the intervention and whether the intervention was helpful in achieving these goals. The participants were also asked about their experiences of the intervention regarding technological issues and the layout of the modules, as well as therapist support and content of the modules.

Interviews were conducted by the second author and two clinical psychologists who were not involved in the research project otherwise (i.e. they were not therapists in the treatment programme). The interviews were conducted face-to-face and in a few cases by phone due to either geographical distance or Covid-19 restrictions. Average interview length was 32 min (range 15 to 46 min). The interviews were audiorecorded and transcribed by the first author and a research assistant.

2.4. Analysis and coding procedure

The interviews were analysed through thematic analysis (Braun and Clarke, 2006; Braun and Clarke, 2013). This basic and flexible method involves different steps or phases in the analytic process, such as reading and rereading the data, coding the data and search for themes of meaning. We used an inductive approach to generate an analysis from the bottom-up based on what is in the data, rather than using data to explore theoretical ideas (Braun and Clarke, 2013). This approach allowed the researchers to answer the research questions as well as to identify other themes that appeared in the interviews. The first and second author coded transcripts independently using NVIVO 12 software (QRS International, 2020). During the coding process, the authors discussed and continuously compared codes in the six-step procedure recommended by Braun and Clarke (2006). The authors discussed occurring themes and disagreements about these, and revisions were made. Finally, a summary of themes was generated that resulted in three main themes and eight sub-themes (Table 3).

2.5. Ethics

The current study was part of a clinical pilot trial and was approved by the Regional Committee for Medical Research Ethics in Western Norway (Number 31352). All participants signed informed consent forms for the data to be used for publication.

3. Results

The thematic analysis yielded three main themes derived from the interviews:

1) Goals and motivation for participating in the intervention.

- 2) Participant experience of the intervention.
- 3) Participant perception of changes after the intervention.

Description of the results related to each main theme and their subthemes will be further described in the text.

3.1. Theme I. Goals and motivation for participating in the intervention

Theme I gives some background on the participants and their reasons for participating in the intervention, along with their individual goals for changing their drinking habits and expectations for treatment.

Table 3 Themes and sub-themes.

Themes	Sub-themes	Quotes
Goals and motivation for participating in the intervention	Worries about health consequences of drinking	"I am aware that excessive drinking is not good for my body ». [P 180-male, 72]
	Acquire tools to control drinking	"() get a better strategy to control my alcohol consumption to a reasonable and hopefully also a minimal level" [P 183-male, 69]
Participant experience of the intervention	Overall satisfaction with the intervention	«This program was very useful». [P 141-female, 48]
	Perceived advantages	"I felt that this was like being a little more anonymous and I could work with this myself, without others being involved in a way."
Participant perception of changes after the	Perceived disadvantages Suggestions for improvement Reduced alcohol consumption	<pre>[P 1-male 58] « () parts of the program did not suit me." "() the text could have been individualised" [P 135-female, 66] «I drinksignificantly less than I did, and I have gained more</pre>
intervention		control overmy behaviour regarding the drinking pattern I had." [P 170-male, 58]
	Improved mental and physical health	"() I feel that I am fitter and feel more ready to get in better physical shape both physically and mentally I feel better". [P

153-female, 381

3.1.1. Worries about health consequences of drinking

Some participants expressed their worries about the physical and mental health consequences of excessive drinking as the main reason for participating in the programme. Some had been encouraged by their physician to reduce consumption because of existing health problems, while others felt that alcohol intake contributed to poor fitness – both physically and mentally:

"I have not had major health challenges due to alcohol abuse, but poor sleep, low energy, feeling unwell, feeling drunk and not wanting to be [drunk]."

[P 11- female, 59 years].

Participants also reported that close family members were worried about their alcohol habits and the consequences for both physical and mental health.

One female participant expressed:

"I think my husband has said something about him not thinking it's okay that I need to have a glass of wine or two every day." [P 8 - female, 48 years].

3.1.2. Acquire tools to control drinking

Most of the participants expressed their main expectation from the treatment programme was to acquire tools to control their drinking. Some wanted new perspectives on things like how to make healthier choices in everyday life. Others expressed hoping to learn specific techniques to stop drinking after a certain number of alcohol units and thus reduce drinking to an acceptable level. However, a few wanted to abstain from or stop drinking alcohol. Some participants referred to previous unsuccessful attempts to control drinking and pointed to the awareness-raising aspect of the cognitive behavioural approach:

"My aim was to gain better control of my alcohol consumption because I periodically experience it getting out of control. And so, I want one thing, that is, a little cognitive reflection on how to get a better strategy to control my alcohol consumption to a reasonable and hopefully also a minimal level."

[P 6 - male, 69 years].

3.2. Theme II. Participant experience of the intervention

Theme II consists of 4 sub-themes that describe overall satisfaction with the intervention among the participants, what was helpful and not so helpful in changing drinking habits. The suggestions provided by the participants to improve the programme are also included.

3.2.1. Overall satisfaction with the intervention

This sub-theme applies to the overall impression of the treatment programme, including communication with and support from the therapist, as well as the ease-of-use and functionality of the IT platform. Most participants said that the programme was very useful and that more people should be given access to the platform. They highlighted that the content of the modules was informative, and they expressed their gratitude for having been given the opportunity to participate. It was also emphasised that the programme should be aimed at people who want to change their drinking habits before they develop into major problems:

"I think this programme would be very good for people who want to try to do something without feeling that they have such a big problem."

[P 1 - male, 58 years].

Most of the participants underlined the importance of communicating with the therapist/professional who is understanding and supportive, but who also challenges them when needed: "(...) the therapist, she was exceptionally good, and we had weekly contact and she gave input and tips and help (...) and it was kind of positive and, in a way, it helped." [P 1- male, 58 years].

However, some said that the therapist gave too little feedback along the way, and that they needed more contact. Others pointed out that they themselves could have taken more initiative to contact the therapist, and that they did not make enough use of the opportunity for more contact. The participants nevertheless accepted that therapist guidance was secondary to the self-help modules and reported that they had not expected more contact in the first place.

"I probably did not expect much dialogue with the therapist in the first place (...) I had the opportunity for more contact with her, but I did not take advantage of this opportunity." [P 11 - female, 59 years].

3.2.2. Perceived advantages

When asked about the advantages, the participants emphasised the structure and timesaving aspect, and the opportunity to work on tasks and exercises at their own pace. Some also stressed the usefulness of the SMS reminder for daily registration of alcohol units. The participants also thought the programme was well structured and that it was easy to navigate through the various modules:

« It can be combined with other tasks, things you do, so it is very flexible. For example, you can do it in the evening or when you have time».

[P 2 - male, 52 years].

"(...) it was easy to jump back and forth in the modules. There was not much text, which was very good, and it was not very extensive tasks."

[P 5 - female, 38 years].

Participants also highlighted confidentiality and anonymity as a major benefit of the programme and that having an alcohol problem is associated with shame and stigma. They pointed to the need for discretion and the ability to remain anonymous and not show up at a drug clinic. They also emphasised that the threshold for seeking help may be reduced by offering online treatment.

One participant expressed:

"(...) starting treatment and talking to people...it was like a barrier... which I was not ready for. I felt that this was like being a little more anonymous and I could work with this on my own, without others being involved in a way."

[P 1 - male, 58 years].

3.2.3. Perceived disadvantages

Even though most of the participants said the IT platform worked well and that it was easy to use, a few of the participants said the login process was somewhat complicated and cumbersome or that it took some time before they figured out how to navigate in the platform:

"(...) the registration was a bit tiring ... the SMS and the one where you had to log on with bank ID."

[P 9 - female, 22 years].

One participant thought his age was a barrier:

"I'm not that good at internet. I'm a little too old for that, I think (...) I spent the first couple of weeks figuring it all out (...). [P 12 - male, 72 years].

A few participants said that the programme did not meet their expectations or they did not identify with the content in some modules or found it irrelevant for their situation, e.g., the focus on mental health consequences of frequent drinking or the effect of alcohol on behaviour. These participants called for more attention on the positive aspects of alcohol, and stated that the negative consequences were overemphasised:

"(...) I don't think it made sense to me (...). I have never had such difficulties (...)".

[P 4 - male, 74 years].

3.2.4. Suggestions for improvement

When asked to suggest improvements to the treatment programme, many said they thought it was good just as it was. However, some participants suggested improvements like expanding contact with the therapist and more tailoring and individualised treatment. Participants who expressed a need for more contact with the therapist said there should be a face-to-face meeting halfway through the course of treatment and that a physical meeting would strengthen the motivation for completing the treatment programme. One participant suggested tailoring the treatment by choosing modules that are relevant to individual needs.

"(...) my suggestion is that in the first interview you pick modules... that is, based on the challenges of the person (...) you have some fixed modules, which are in a way the basic package, and then you pick the ones that are most relevant to the problem the person has." [P 3 - male, 36 years].

3.3. Theme III. Participant perception of changes after the intervention

This theme describes the changes in drinking patterns and physical and mental health that the participants experienced during the course of treatment and at the end of treatment.

3.3.1. Reduced alcohol consumption

Most participants reported that they had changed their drinking habits during the treatment and they drank less than they used to. Others reported that they reduced their intake of alcohol but h-ad not yet reached the goal they set at the start of treatment. Some participants also pointed out that they had become more aware of why they were drinking and how to prevent relapsing into old habits:

"(...) I kind of know how much I consume, and how much I consume now...and it is demonstrably less. And then I'm very happy that I, eh...have several days where I'm not in a hangover (...)". [P 4 - male, 74 years].

"It [the treatment] has had a big impact on my problem...in a positive direction. I thought I knew what was wrong with drinking a lot of alcohol, but now I understand that I needed much more information."

[P 11- female, 59 years].

Some participants also pointed out that due to the Covid-19 pandemic, they drank less and to a lesser extent sought out situations where alcohol was served. One of the participants reported that – due to the regional lockdown – which lasted for an extended period, he had been drinking less alcohol during the course of treatment. However, he said he was not sure whether this was related to his participation in the treatment programme or the pandemic, or both.

3.3.2. Improved mental and physical health

Some participants described their physical and mental health improving during the treatment. They experienced being in better physical shape that affected their mental well-being which in turn increased their motivation to start exercising more regularly. Some participants pointed out that they were sleeping better, which they related to reduced alcohol intake.

One male participant explained:

"(...) the days when there is no alcohol, I get a calmer sleep and I feel better (...) when you have drunk too much alcohol before going to bed you fall asleep quickly, but then you wake up (...) then you have a partially restless night." [P 12 - male, 72 years].

4. Discussion

The main objective of the present study was to evaluate how participants experienced a therapist-guided ICBT intervention to help them address their drinking habits, and how to improve the programme to further enhance its usefulness among target populations. The results indicated that most of the participants experienced the intervention as useful in the way that it was flexible, well-structured and time saving, and they could work with the modules at their own pace. Furthermore, participants expressed their gratitude for having received treatment at an early stage before developing more serious problems.

Among the perceived advantages of ICBT were also the anonymity of the intervention and support from a therapist, which is in line with results from previous qualitative studies of ICBT (e.g., Alberts et al., 2018; Asplund et al., 2019).

Furthermore, several participants expressed a desire for increased contact and communication with the therapist. This corresponds with results from a study on patient perspectives on internet-delivered cognitive behaviour therapy for alcohol misuse (Hadjistavropoulos et al., 2021). On the other hand, some participants also said that they did not expect a great deal of contact with the therapist in the first place, and that they knew therapist support was secondary to the self-help modules. According to Hadjistavropoulos et al. (2021), the results from several studies indicate that offering consistent guidance from a therapist gave better patient outcomes in ICBT for alcohol misuse. However, they underline inconsistencies in the research literature and that some recent studies (e.g., Johansson et al., 2021) have found no significant differences between guided ICBT and self-help programs.

Regarding improving the intervention, some participants suggested that there should be a face-to-face meeting halfway during the course of treatment. They stressed how meeting the therapist face-to-face could strengthen commitment and efforts to reach treatment goals and thereby enhance the motivation for completing the treatment. The integration of face-to-face and internet sessions within the same treatment (blended treatment) has been suggested as a more acceptable approach among both clinicians and clients who are sceptical to ICBT as a stand-alone intervention (Andersson et al., 2019).

In order to meet various needs and preferences among different patients, blended treatment would seem to be a more widespread approach for the future (Andersson et al., 2019).

The effects of tailoring ICBT to meet individual needs have been investigated in several studies, such as in benchmark studies (e.g., Kraepelien et al., 2018). In the present study some participants called for more individualised treatment and tailoring of the intervention due to lack of identification with the content of some modules. They therefore suggested tailoring the modules relevant to individual needs. This is in line with findings from similar qualitative studies from participant experience of ICBT for alcohol misuse, stating that individualisation is desired and may improve the intervention (Darvell et al., 2015; Hadjistavropoulos et al., 2021). In the further development and implementation of the intervention, we think it is relevant to include the participants' suggestions, both in terms of tailoring modules to meet individual needs, as well as integrating a face-to-face meeting with the therapist halfway through the treatment. Such improvements may have an impact on the effects of the intervention that will be tested in a

randomized controlled study in the next round.

4.1. Strenghts and limitations

One strength of the present study was that the interviews were conducted shortly after the end of treatment while the participants' experiences were still fresh in their memory. Another strength of the study is that both young, middle-aged, and older people were represented in the sample. However, some limitations should be addressed.

First, the sample consisted of strongly motivated self-referred participants. Most of them had university-level education and were largely middle-aged and older. This means the participants in our study may not be representative, and the findings cannot be generalised to other populations with different educational and socioeconomic backgrounds.

Secondly, two experienced clinical psychologists familiar with CBT who are positive to ICBT conducted most of the interviews. This may have influenced the interview setting, the follow-up questions and the participant's possibility to addressing negative and positive views about the intervention.

Thirdly, although most interviews were conducted face-to-face, some participants were interviewed by phone due to geographical distance and Covid-19 restrictions. This may have influenced the information given by these participants.

4.2. Conclusion

Analyses of the interviews in the present study suggest that a therapist-guided ICBT programme for hazardous and harmful drinking can help individuals to address alcohol consumption and give them tools to cope with their drinking. Tailoring modules to individual needs as well as increased contact with the therapist to enhance motivation, should be further investigated.

Funding

This research did not receive any specific grant from public, commercial or not-for-profit funding agencies.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

We would like to acknowledge the participants in the present study. We would also like to thank the therapists and interviewers for their contribution to the study.

Appendix A. Interviewguide

Questions

- 1. What were your goals with participation in the treatment program?
- 2. Describe the extent to which the program helped you to achieve the goals you had set for the treatment.
- 3. Tell me about how you experienced the treatment program.
- 4. How do you think this program suited you and your situation?
- 5. How would you describe your confidence in the therapeutic content of the modules?
- 6. What do you think is the main difference between receiving therapist guided
- Internet treatment compared to meeting a therapist face-to-face?
- 7. How do you think the therapist understood your problems, and to what extent do you think the therapist helped you to achieve the goals you had set for the treatment?
- 8. What do you think about the layout of the modules, and how did you experience reading the text in the various modules?
- 9. Was there anything in the treatment program you thought was unpleasant or unnecessary, and do you have any specific suggestions for improvements?
- 10. How do you think your everyday life would be now if you had not undergone the treatment program?

References

- Alberts, N.M., Hadjistavropoulos, H.D., Titov, N., Dear, B.F., 2018. Patient and provider perceptions of internet-delivered cognitive behaviour therapy for recent cancer survivors. Support. Care Cancer 26, 597–603. https://doi.org/10.1007/s00520-017-3872-8.
- Andersson, G., Titov, N., Dear, B.F., Rozental, A., Carlbring, P., 2019. Internet-delivered psychological treatments: from innovation to implementation. World Psychiatry 18, 20–28. https://doi.org/10.1002/wps.20610.
- Arndt, S., Schultz, S.K., 2015. Epidemiology and demography of alcohol and the older person. In: Crome, I., Wu, L.-T., Rahul, R., Crome, P. (Eds.), Substance Use And Older People. Wiley & Sons, pp. 75–90.
- Asplund, R.P., Jäderlind, A., Höijer Björk, I., Ljótsson, B., Carlbring, P., Andersson, G., 2019. Experiences of internet-delivered and work-focused cognitive behavioural therapy for stress: a qualitative study. Internet Interv. 18, 100282 https://doi.org/ 10.1016/j.invent.2019.100282.
- Babor, T.F., Caetano, R., Casswell, S., Edwards, G., Giesbrecht, N., Graham, K., Alcohol Public Policy Group, 2010. Alcohol: no ordinary commodity - a summary of the second edition. Addiction 105 (5), 769–779. https://doi.org/10.1111/j.1360-0443.2010.02945.x.

Beck, A.T., Wright, F.D., Newman, C.F., Liese, B.S., 1993. Cognitive Therapy of Substance Abuse. Guildford Press.

Braun, V., Clarke, V., 2006. Using thematic analysis in psychology. Qual. Res. Psychol. 3, 77–101. https://doi.org/10.1191/1478088706qp0630a.

- Braun, V., Clarke, V., 2013. In: Successful Qualitative Research. A Practical Guide for Beginners. SAGE, pp. 173–200.
- Caputo, F., Vignoli, T., Leggio, L., Addolorato, G., Zoli, G., Bernardi, M., 2012. Alcohol use disorders in the elderly: a brief overview from epidemiology to treatment options. Exp. Gerontol. 47 (6), 411–416. https://doi.org/10.1016/j. exger.2012.03.019.
- Carlbring, P., Andersson, G., Cuijpers, P., Riper, H., Hedman-Lagerlöf, E., 2018. Internetbased vs. face-to-face cognitive behaviour therapy for psychiatric and somatic disorders: an updated systematic review and meta-analysis. Cogn. Behav. Ther. 47 (1), 1–18.
- Darvell, M.J., Kavanagh, D.J., Connolly, J.M., 2015. A qualitative exploration of internetbased treatment for comorbid depression and alcohol misuse. Internet Interv. 2 (2), 174–182. https://doi.org/10.1016/j.invent.2015.03.003.
- Dear, B.F., Zou, J.B., Shehzad, A., Lorian, C.N., Johnston, L., Terides, M.D., et al., 2015. Examining self-guided internet-delivered cognitive behaviour therapy for older adults with symptoms of anxiety and depression: two feasibility open trials. Internet Interv. 2, 17–23. https://doi.org/10.1016/j.invent.2014.11.002.
- Ekström, V., Johansson, M., 2020. Choosing internet-based treatment for problematic alcohol use – why, when and how? Users'experiences of treatment online. Addict. Sci. Clin. Pract. 15, 22. https://doi.org/10.1186/s13722-020-00196-5.
- 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. 12, 130–140. https://doi.org/ 10.1016/j.invent.2017.12.001.

Gainsbury, S.M., Blaszczynski, A., 2011. A systematic review of internet-based therapy for the treatment of addictions. Clin. Psychol. Rev. 31, 490–498. https://doi.org/ 10.1016/j.cpr.2010.11.00.

- Hadjistavropoulos, H.D., Mehta, S., Wilhelms, A., Keough, M.T., Sundstrom, C., 2020. A systematic review of internet-delivered cognitive behaviour therapy for alcohol misuse: study characteristics, programme content and outcomes. Cogn. Behav. Ther. 49, 327–346. https://doi.org/10.1080/16506073.2019.1663258.
- Hadjistavropoulos, H.D., Chadwick, C., Beck, C.D., Edmonds, M., Sundström, C., Edwards, W., Ouellette, D., Waldrop, J., Adlam, K., Bourgeault, L., Nugent, M., 2021. Improving internet-delivered cognitive behaviour therapy for alcohol misuse: patient perspectives following programme completion. Internet Interv. 26, 100474 https://doi.org/10.1016/j.invent.2021.100474.
- Johansson, M., Berman, A.H., Sinadinovic, K., Linder, P., Hermansson, U., Andreasson, S., 2021. The effects of internet-based cognitive behavior therapy for alcohol use and alcohol dependence as self-help or with therapist-guidance: a threearmed randomize trial. J. Med. Internet Res. 23 (11), e29666 https://doi.org/ 10.2196/29666.
- Kraepelien, M., Forsell, E., Karin, E., Johansson, R., Lindefors, N., Kaldo, V., 2018. Comparing individually tailored to disorder-specific internet-based cognitivebehavioural therapy: benchmarking study. BJPsychOpen 4 (4), 282–284. https:// doi.org/10.1192/bjo.2018.41.
- McHugh, K.R., Hearon, B.A., Otto, M.W., 2010. Cognitive behavioural therapy for substance use disorders. Psychiatr. Clin. North Am. 33 (3), 511–525. https://doi. org/10.1016/j.psc.2010.04.012.
- Miller, W.R., Wilbourne, P.L., 2002. Mesa Grande: a methodological analysis of clinical trials of treatments for alcohol use disorders. Addiction 97 (3), 265–277. https://doi. org/10.1046/j.1360-0443.2002.00019.x.
- Moore, B.A., Fazzino, T., Garnet, B., Cutter, C.J., Barry, D.T., 2011. Computer-based interventions for drug use disorders: a systematic review. J. Subst. Abus. Treat. 40, 215–223. https://doi.org/10.1010/j.jsat.2010.11.002.

- Nordgreen, T., Gjestad, R., Andersson, G., Carlbring, P., Havik, O.E., 2018. The implementation of guided internet-based cognitive behaviour therapy for panic disorder in a routine-care setting: effectiveness and implementation efforts. Cogn. Behav. Ther. 47 (1), 62–75. https://doi.org/10.1080/16506073.2017.1348389.
- Nordgreen, T., Blom, K., Andersson, G., Carlbring, P., Havik, O.E., 2019. Effectiveness of guided internet-delivered treatment for major depression in routine mental healthcare – an open study. Internet Interv. 18, 100274 https://doi.org/10.1016/j. invent.2019.100274.
- Olthuis, J.V., Watt, M.C., Bailey, K., Hayden, J.A., Stewart, S.H., 2016. Therapistssupported internet cognitive behavioural therapy for anxiety disorders in adults. Cochrane Database Syst. Rev. 3, CDO11565. https://doi.org/10.1002/14651858. CD011565.

QRS International, 2020. NVIVO12: A Qualitative DATA Analysis Software Program.

- Rao, R., Crome, I., Crome, P., Lliffe, S., 2019. Substance misuse in later life: challenges for primary care: a review of policy and evidence. Prim. Health Care Res Dev. 20, e117 https://doi.org/10.1017/S1463423618000440.
- Saunders, J.B., Aasland, O.G., Babor, T.F., de la Fuente, J.R., Grant, M., 1993. Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption-II. Addiction 88, 791–804. https://doi.org/10.1111/j.1360-0443.1993.tb02093.x.

Stelander, L.T., Høye, A., Bramnes, J.G., Selbæk, G., Lunde, L.-H., Wynn, R., Grønli, O.K., 2021. The changing alcohol drinking patterns among older adults show that women are closing the gap in more frequent drinking: the Tromsø study, 1994–2016. Subst. Abuse Treat. Prev. Policy 16, 45. https://doi.org/10.1186/s13011-021-00376-9.

World Health Organization, 2018. Global status report on alcohol and health 2018. World Health Organization. https://apps.who.int/iris/handle/10665/274603.