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Attitudes towards the use of computerized cognitive behavior therapy (cCBT) with children and adolescents: A survey among Swedish mental health professionals

Sarah Vigerland [a,*], Brjánn Ljótsson [a], Fanny Bergdahl Gustafsson [b], Sandra Hagert [b], Ulrika Thulin [a], Gerhard Andersson [c], Eva Serlachius [a]

[a] Department of Clinical Neuroscience, Centre for Psychiatric Research and Education, Karolinska Institutet, Stockholm, Sweden
[b] Department of Psychology, Stockholm University, Sweden
[c] Department of Behavioral Sciences and Learning, Swedish Institute for Disability Research, Linköping University, Linköping, Sweden

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ABSTRACT

Background: Research has shown that computerized cognitive behavior therapy (cCBT), including internet-delivered CBT), can be effective. However, less is known about clinicians' attitudes towards this mode of treatment delivery. The aim of this study was to explore the attitudes of clinicians within child- and adolescent psychiatry towards cCBT and to explore if attitudes differed depending on rurality or theoretical orientation.
Methods: A random sample of Swedish child- and adolescent mental health services was selected for a survey study (N = 15). A total number of 156 surveys were collected.
Results: Results showed a generally low knowledge of cCBT. A majority of clinicians were positive to cCBT as a prevention program (73%), and as treatment for mild to moderate problems (75%). More caution was reported with regard to more severe mental health problems. Treatment orientation, but not rurality, had a significant effect on several ratings. Thematic analyses showed concerns regarding for example lack of human support and the restricted usefulness of cCBT regarding age and complexity of symptoms. Perceived advantages were for example increased availability and possibility of an alternative way of communication.
Conclusions: This study adds to the limited literature on attitudes towards cCBT. The emerging picture is of a mainly positive attitude and prerequisites for dissemination are promising.
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1. Introduction

As technology evolves and the demands on health care increases, different modes of treatment delivery have been developed, for example internet-based treatment (Andersson, 2010). Computerized cognitive behavior therapy (cCBT), including internet-based treatments, has been shown to be effective for a range of disorders, for example anxiety disorders and depression (Hedman et al., 2012). For children and adolescents, research on cCBT is still limited (Richardson et al., 2010), but results so far are promising (Khanna and Kendall, 2010; March et al., 2009; Spence et al., 2011; Wuthrich et al., 2012; Merry et al., 2012; Vigerland et al., 2013).

Studies on cCBT for adults and youth have mainly focused on treatment outcomes, and knowledge about the attitudes of patients, research participants, clinicians and the public towards cCBT is scarce. Some studies have investigated the acceptability of treatment from patients' views (Mohr et al., 2010; Wootton et al., 2011) and found cCBT to be an acceptable treatment method that could overcome barriers like time constraints. Two studies from the United Kingdom have investigated clinicians' attitudes towards cCBT and found mainly positive attitudes, although few clinicians actually used cCBT in their clinical practice (Stallard et al., 2010; Whitfield and Williams, 2004). Furthermore, clinicians expressed a wish to learn more about cCBT and receive training before they were to use them themselves. Cook et al. (2009), identified negative attitudes as one of the most common barriers to adopting new treatments. This could for example be in the forms of doubts about the new methods efficiency, lack of interest or that the new method is not compatible with the clinician's values, education or style.

Wangberg et al. (2007) did a survey of Norwegian psychologists use of email and text-messages within therapy and found that theoretical approach correlated with their attitude towards these communication methods. Specifically, a dynamic theoretical stance related negatively to positive attitudes, and a positive attitude correlated with a higher degree of usage in their own work. In Australia, Gun et al. (2011) explored the acceptability of internet-based treatments for anxiety or depression among health professionals and lay people. Internet-based treatment

* Corresponding author at: Child and Adolescent Psychiatry Research Centre, Gävlegatan 22, 113 30, Stockholm, Sweden. Tel.: +46 851452210, +46 735330956.
E-mail address: sarah.vigerland@ki.se (S. Vigerland).

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was rated acceptable for mild and moderate, but not severe, disorders and there was no significant difference in the acceptability ratings between health professionals and lay people. In New Zealand, Fleming and Merry (2013) investigated the attitudes of youth work service providers in focus groups and semi-structured interviews and found that they were positive to using cCBT in their services.

In Sweden, there are several politicians and care-givers who are interested in implementing cCBT for children and adolescents within regular health care. A successful dissemination of this method is more likely if the clinicians who will work with or refer to cCBT are willing to do so. It is also likely that clinicians, depending on their attitudes towards and beliefs about cCBT, might introduce available programs differently and thus affect the willingness of patients to try the method. Therefore, it is important to investigate attitudes among clinicians before disseminating cCBT to children and adolescents. The results could affect how dissemination is planned, for example regarding information and education on cCBT.

To the best of our knowledge, this is the first study of clinicians' attitudes towards cCBT in Sweden, and one of the few focusing specifically on cCBT for children and adolescents. As cCBT has been suggested as a way to increase availability of evidence-based treatments, it is possible that attitudes might be more positive in rural areas where problems with geographical availability might be larger than in urban areas.

1.1. Aims

The aim of this study was to examine the attitudes of clinicians within Child and Adolescent Mental Health Services (CAMHS) towards cCBT for children and adolescents. We also wanted to explore if attitudes differed depending on rurality or theoretical orientation.

2. Method

This study was an explorative survey study. Survey answers were collected from 15 CAMHS across Sweden.

2.1. Participants

Participants were 156 clinicians working within 15 Swedish CAMHS, including psychologists, social workers, physicians and nurses. Administrative staff was excluded from the study.

2.2. Procedure

To reflect urban as well as more rural counties in Sweden, a total of 21 counties were divided into five groups based on population density (population per square kilometer), with group 1 representing the most urban regions and group the most 5 rural regions (see Table 1). Four CAMHS-units from the counties within each group were randomly chosen using random computer numbers. The first three were contacted first, and the fourth kept as a reserve unit.

The survey was conducted through visits at each of the 15 units that had been selected in the randomization process and had agreed to participate. The visits at the units took approximately 30 min and consisted of brief information about the study, participants conducting the survey, and allotted time for participants to ask questions about or comment on the study or cCBT (including confidentiality and voluntary participation). The survey was administered and collected at all units except one where the completed surveys were posted afterwards.

Table 1
Min-Max population per square kilometer and number of CAMHS-units for each group.

Group	Min	Max	Number of CAMHS-units
1(urban)	55.2	320.5	42
2	40.9	49.7	13
3	20.9	33.1	10
4	11.2	18.3	8
5 (rural)	2.6	9.9	13

2.3. Drop out

A total of five units declined to participate because of lack of time or interest. In group 1, two units declined which led to a new randomization process. In total, 161 of the 207 clinicians (78%) who worked at the units were present at the time of data collection. Of these, five people chose not to participate. Stated reasons were temporary employment (n = 1), lack of experience (n = 1) and no reason (n = 3).

2.4. Measures

A translated and adapted version of the questionnaire *Clinicians'´ views about the use of computerized CBT with children and adolescents* (Stallard et al., 2010) was used in this study. The questionnaire was translated by the authors, and seven questions regarding background information and computer skills were added. In total, the Swedish version consists of 18 items (see Online supplement 1). The questionnaire covers knowledge and experience of cCBT, if the respondent could consider using or referring to cCBT, in what settings cCBT could be acceptable and general problems and advantages with cCBT. Background questions included age, gender, computer competence, profession, theoretical orientation (cognitive behavior therapy, psychodynamic therapy, family oriented therapy or other), and own experience and knowledge of cCBT. In a written introduction to the questionnaire, it was explained that cCBT could include programs delivered over the Internet or for example via a CD-ROM.

The questionnaire was pilot tested before data collection began and 10 CAMHS in Stockholm, were contacted for this purpose. Six of these declined, three never answered and one offered to complete the questionnaire and send it by post (n = 9). The results from this single site did not lead to any changes in the questionnaire. The pilot site data were not included in the subsequent data collection.

2.5. Data analysis

A combination of qualitative and quantitative analyses was used in the study. All statistical analyses were conducted with SPSS Statistics 21 or 22. Chi-square and Kruskal–Wallis were used to test differences in responses between treatment orientations. Ordinal regression was used to test the relationship between the degree of rurality and response on ordinal variables. When significant change in odds of giving high or low ordinal responses was observed with increasing rurality, estimated chances of reporting these ordinal values for each degree of rurality were obtained from SPSS and reported. Thematic analysis was performed to analyze the qualitative data in accordance with the procedure described in Braun and Clarke (2006) through the following five phases: 1) Familiarizing yourself with your data; 2) Generating initial codes; 3) Searching for themes; 4) Reviewing themes; and 5) Defining and naming themes. The material was manually coded and thematized independently by the two of authors (FB, SH),who then compared and agreed on the themes. Finally, the themes were reviewed and compared to the data by the other authors and an agreement was reached. The prevalence of each theme is presented, referring to the number of coded extracts within the theme.

If respondents chose the alternative “Other” in addition to a predefined alternative, only the predefined alternative was retained in the dataset. If respondents checked between two ordinal alternatives, the highest alternative was entered into the dataset. Due to varying levels of completion, the numbers and percentages reported are based on completed items. Percentages are rounded up and may total above 100%.

3. Results

Sixty-eight per cent (n = 106) of participants completed all questions and 16% (n = 25) had only one missing item. The participants with the greatest number of missing items had 26 missing items. No item had more than 11 missing answers.

Demographics are presented in Table 2. A large majority of 86% (n = 133) reported having no prior experience of cCBT and only 19% reported that they had 'quite a lot' or 'a lot' of knowledge about cCBT content, how cCBT is used or research supporting cCBT. Fifty-nine clinicians (38%) reported 'CBT' as their treatment orientation. Thirty-six participants (23%) reported 'Other', while thirty-three (22%) and twenty-seven (17%) participants, respectively, reported family-oriented treatment or psychodynamic treatment as their treatment orientation. Online supplement 2 includes the answers to all items of the questionnaire, for the whole sample and by treatment orientation together with the results of appropriate statistical tests when comparing the theoretical orientations with each other.

3.1. Potential use of CCBT

A majority of clinicians reported that cCBT could be helpful 'a lot' or 'quite a lot' as a prevention program (72%) or as an intervention for mild to moderate problems (74%). See Fig. 1. When taking treatment orientation into account, clinicians who identified themselves as working mainly with CBT were more positive towards the helpfulness of cCBT for mild to moderate, $x^2(2) = 26.73$, $p < .000$, and severe problems, $x^2(2) = 16.754$, $p < .000$, as well as to prevention, $x^2(2) = 6.95$, $p = .031$, when compared to clinicians working with PDT or family therapy. There was no significant effect of rurality.

Forty-two per-cent (n = 64) reported that cCBT would yield lower results compared to face-to-face CBT, and 33% thought results would be comparable. No one thought cCBT would show better results than face-to-face CBT. Clinicians working mainly with CBT were significantly more likely to report that cCBT would be comparable to face-to-face CBT, $x^2(6) = 24.73$, $p > .000$. An increase in rurality was associated with a decrease in the perceived effectiveness of cCBT compared to face-to-face CBT, with an odds ratio of 0.77, Wald $x^2(1) = 4.471$, $p = .034$ (observed [and estimated] proportions answering 'Worse' or 'Much worse' for groups of increasing rurality; 66% [47%]; 30% [55%]; 57% [61%]; 83% [67%]; 64% [73%]).

Fifty per-cent of the clinicians reported that they would use cCBT themselves and an additional 30% that they could consider it. A majority answered that they would refer a patient to a colleague or special unit for cCBT (65%, n = 101 and 57%, n = 86, respectively). Less than 10% reported that they would not be willing to use cCBT in any of these ways. There was a significant difference in the proportion willing to use cCBT themselves between the different treatment orientations, with CBT-oriented clinicians being more likely to report willingness to use $x^2(4) = 23.30$, $p < .000$. There was no significant effect of rurality.

Table 2
Demographics.

N = 156	N (%)
Group	
1	40 (26)
2	35 (22)
3	25 (16)
4	30 (19)
5	26 (17)
Female	120 (77)
Age	
16–25	2 (1)
26–35	37 (24)
36–45	40 (26)
46–55	42 (27)
56–65	33 (21)
66–75	2 (1)
Computer experience	
A lot	44 (28)
Quite a lot	98 (64)
A little	13 (8)
Very little	0 (0)
None	0 (0)
Occupation	
Psychologist	62 (40)
Social worker	49 (31)
M.D	16 (10)
Nurse	22 (14)
Mental health worker	4 (3)
Other	3 (2)
Treatment orientation	
Psychodynamic	27 (17)
CBT	59 (38)
Family-oriented	33 (22)
Other	36 (23)

3.2. Availability of cCBT

A majority of participants agreed that cCBT should be available within primary care (66%, n = 102) and in CAMHS (77%, n = 117). Opinions differed on whether or not cCBT should be available in schools (Yes 28% [n = 43]; Maybe 36% [n = 55]; No 37% [n = 41]) and freely online (Yes 18% [n = 27]; Maybe 30% [n = 45]; No 40% [n = 60]). A significantly higher proportion of CBT-clinicians reported that cCBT should be available within child and adolescent psychiatry $x^2(6) = 22.53$, $p < .001$. There was no significant effect of rurality.

In terms of support, 67% (n = 103) did not believe cCBT should be available without any professional support. Forty-four per-cent (n = 69) answered that professional support from someone with competence within psychiatry should be provided with cCBT, while only 15% (n = 23) did not think this was necessary. Twenty-eight per-cent thought support from a health-care professional should be required. There was no significant effect of treatment orientation or rurality.

3.3. Concerns

In total, 27% indicated that they had some concerns about cCBT. About a third (30%, n = 46) said they might have concerns and 44% (n = 67) said they had no concerns. When asked to rate potential concerns or problems, some issues were more prominent, as they were indicated as causing a great deal of problems by more than 40% of participants (See Fig. 2). These were 'Risk of dropping out' and 'Not completing all sessions', 'Lack of therapist contact', 'No therapeutic alliance', and that a standardized treatment program would not be tailored to suit the individual.

More than fifty per cent believed that computer competency would not be a problem at all and that an unsuccessful cCBT would ruin the possibility of other successful treatments. There were no significant effects of theoretical orientation on ratings of concern, except for questions regarding lack of therapist contact and therapeutic alliance, and that it might sabotage other treatments if cCBT would not be successful. CBT-clinicians were less likely to rate this as a large concern. There was no significant effect of rurality.

3.4. Advantages

The majority (74%, n = 116) believed that there were advantages with cCBT, 23% (n = 36) were unsure about advantages and only 1% (n = 2) saw no advantages at all.

When asked to rate potential advantages, more than 40% rated most items as a great advantage. Only regarding 'Solution to lack of CBT therapists', 'Preferred media to other forms of self-help' and 'Less dependent

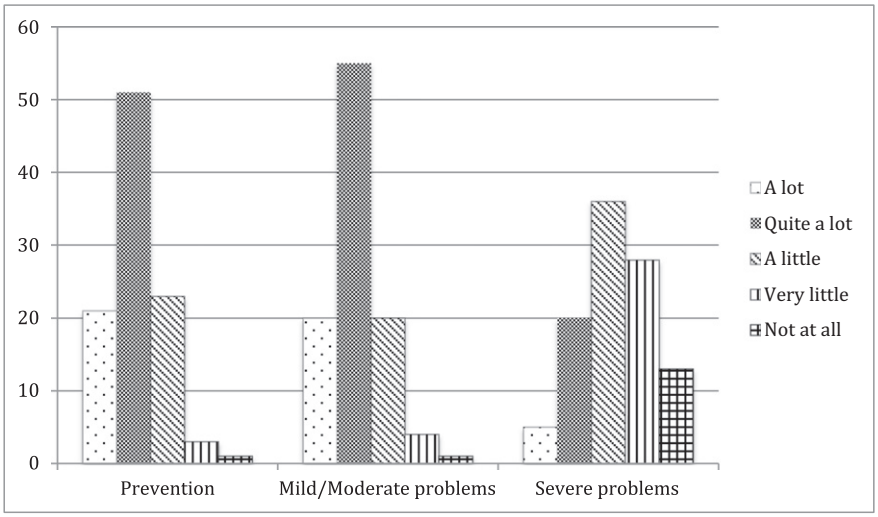

Fig. 1. Ratings on potential of cCBT to help children and adolescents (% of responses).

on therapist' were there less than 40% of participants endorsing it as a great advantage. There was no item where more than 30% thought that the claim would not be an advantage at all (see Fig. 3). There was a significant effect of theoretical orientation on about half of the ratings of potential advantages, with CBT-clinicians being more likely to endorse items as being advantages. However, for advantages regarding CBT being easily adapted to cCBT, reducing stigma, easier to share personal information, offering treatment earlier, computers being a preferred media and making it easier to revise, there was no significant effect of treatment orientation. An increase in rurality was associated with an increase in the odds of reporting 'Increased availability in rural areas' as being 'Very much' of an advantage, with an odds ratio of 1.33, Wald $x^2(1) = 5.038$, p = .025 (observed [and estimated] proportions answering 'Very much' for groups of increasing rurality; 51% [56%]; 71% [63%]; 80% [69%]; 59% [75%]; 84% [80%]). Increase in rurality was also associated with an increase in the odds of reporting 'Earlier access to treatment as being 'Very much' of an advantage, odds ratio of 1.29, Wald $x^2(1) = 4.727$, p = .030 (37% [50%]; 79% [56%]; 61% [63%]; 63% [69%]; 72% [74%]).

3.5. Thematic analyses

3.5.1. Concerns

Five themes were coded in the thematic analysis regarding concerns. See Table 3 for an overview and examples. The first theme, "Human support" (n = 45), means that cCBT should not be available without professional support; someone needs to motivate, give feedback and answer questions. It also has two subthemes, the first, "Reduced clinical information" (n = 8), points out that not seeing the child, adolescent or family means relying on less information on which to base your clinical judgment, and that treatment progress might be harder to monitor than in a traditional face-to-face setting. The second sub-theme, "The therapeutic meeting" (n = 7), reflects that cCBT cannot provide the important aspects of treatment that occur specifically through the encounter of another person. The second theme, "Not suitable for everyone" (n = 39), reflects the opinion that cCBT is more suitable for easier, well-defined problems and that the degree of suitability depends on age, type of problem, severity and prerequisites in the family, such as parent and child skills and capacities. The third theme, "Too much focus

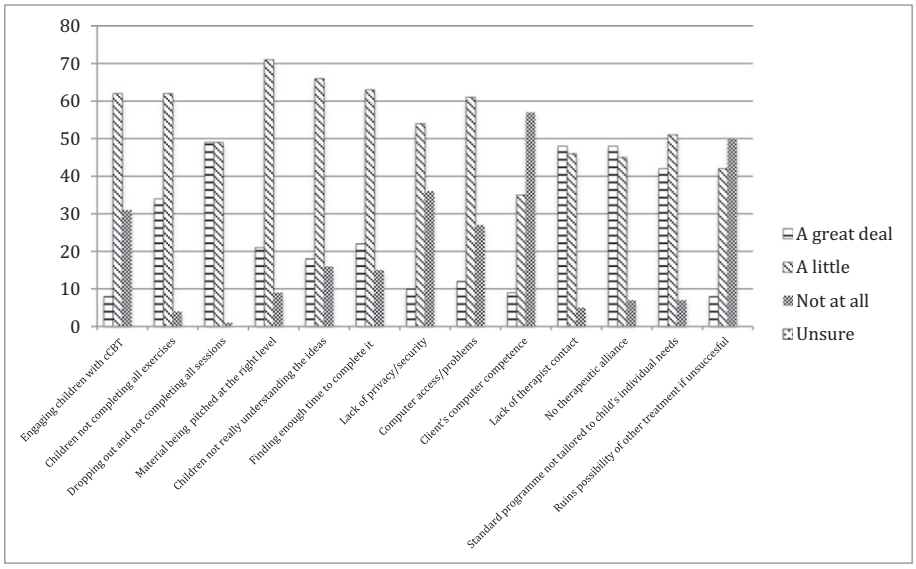

Fig. 2. Ratings of concerns about cCBT (% of responses).

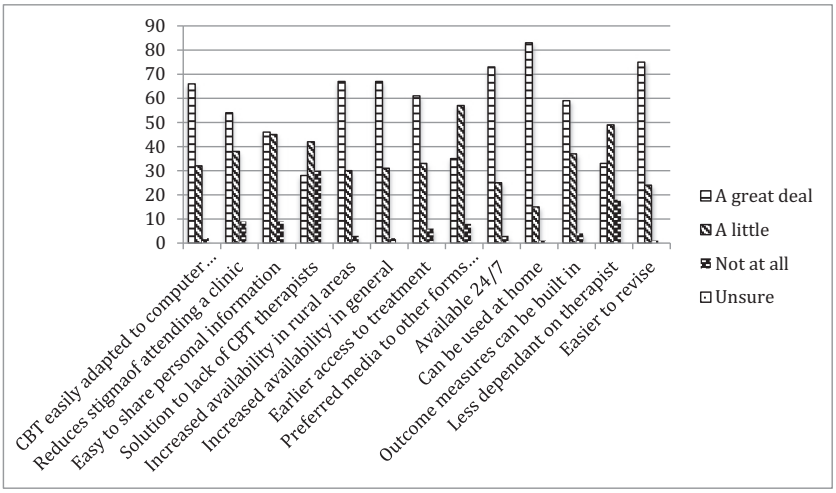

Fig. 3. Ratings of perceived advantages with cCBT (% of responses).

on the individual" (n = 23), means that cCBT might focus too much on the individual at the expense of contextual factors and family factors.

3.5.2. Advantages

In the thematic analysis regarding advantages, six themes were coded. See Table 4 for an overview and examples. The first theme, "Increased availability" (n = 89), means that cCBT can reach more patients and at an earlier stage, be used whenever and wherever and that it makes it easier for individuals who have to travel long distances or for other reasons have difficulties getting to a CAMHS. The second theme, "Appealing medium" (n = 40), reflects that many children and adolescents have a lot of computer experience and might prefer communicating and accessing information through a computer. The third theme, "Advantages with self-help" (n = 22), means that the availability of cCBT could strengthen self-esteem, increase awareness of the problems, reduce stigma and increase children's and adolescents' confidence in their own ability. The fourth theme, "Complement" (n = 21), means that cCBT could be integrated in face-to-face CBT to support and enhance the structure and focus of the treatment, support follow-up, and improve the quality of regular CBT. The fifth theme, "Alternative way of communicating" (n = 17), reflects that cCBT might be an alternative for those who, for different reasons, have difficulties communicating face-to-face. Also, children and adolescents might be able to be more honest when not talking face-to-face. The last theme, "Effective form of treatment" (n = 5), reflects that cCBT could be a cost- and time efficient way of treating patients.

4. Discussion

The aim of this study was to explore CAMHS clinicians' attitudes, knowledge and beliefs about cCBT for children and adolescents. The results showed that the majority of participants did not have any experiences of working with cCBT. Clinicians reported little or no knowledge of the content of existing programs, how they are used or research supporting cCBT. A majority of clinicians believed that cCBT for children and adolescents would be effective as a prevention program as well as for mild to moderate problems. Fewer reported that it would be suitable for more severe problems. About half would consider using cCBT themselves and a few more would be willing to refer patients to a colleague or specialist unit for cCBT. Most agreed, however, that treatment should not be offered freely online, but should be linked to a CAMHS unit or primary care. Clinicians also agreed that cCBT is not better than to face-to-face cCBT, but possibly equivalent. Just over a quarter reported concerns with the method, compared to three-quarters reporting perceived advantages.

Treatment orientation had a significant effect on ratings of helpfulness of CBT, with CBT-clinicians being more positive to cCBT overall. This group was also significantly more likely to rate cCBT as being as effective as face-to-face treatment, and endorsing advantages with regard to lack of CBT-therapists and increased availability. They were also less likely to report 'Lack of therapist contact' and 'Lack of therapeutic alliance' as being a problem. Rurality had a significant effect on only three variables; advantages of cCBT with regard to being able to offer earlier treatment and increased availability in rural areas, and perceived effectiveness of cCBT compared to face-to-face CBT. Considering the small amount of significant effects and the large number of analyses, it is not unreasonable to believe that the significant results might be due to chance.

As in Stallard et al. (2010) and Gun et al. (2011), the majority of participants had a positive attitude towards the use of cCBT as a prevention program or for mild to moderate problems, but were more reluctant with regard to severe problems. The results are also consistent in the negative attitude towards cCBT being available freely on the Internet. However, participants in the present study had more differing opinions regarding whether cCBT should be available without professional support and in schools.

Since the questionnaire used in the present study is an adaptation of the one used in Stallard et al. (2010), the results from the thematic analysis regarding concerns and advantages can be compared.

Stallard et al. (2010) found four themes in terms of concerns; 'Limited potential', 'Risk management', 'Support and understanding' and 'Lack of therapeutic relationship', with the sub-theme 'Social isolation'. These themes are largely consistent with the themes found in this study, even though they have been named differently. However, two themes differ; Swedish clinicians do not seem concerned about the theme 'Support and understanding'; that youth will not understand, and might not receive enough support to understand, the theoretical concepts of CBT, found in Stallard et al. (2010). Furthermore, clinicians in the present study were expressed concern that cCBT would focus on the individual at the expense of system.

Themes regarding perceived advantages with cCBT are, to a certain degree, consistent between the present study and Stallard et al. (2010). They found the themes 'Ease of access', 'Preferred medium for children and adolescents' and 'Reduced stigma' which are comparable with themes in the present study; 'Increased availability', 'Appealing medium' and 'Advantages with self-help'. The themes 'Complement' and 'Alternative way of communication' in the present study overlaps to some extent with the themes 'Supplementing/replacing face-to-face contact' and 'Increased engagement' in Stallard et al. (2010). In addition, Stallard et al. (2010) found a theme which they termed as 'Useful for

Table 3
Themes in clinicians' concerns with cCBT.

Theme	Examples
1. Too much focus on the individual	"Risk for too much individualizing and forgetting the context the child is in"
	"Too much focus on the individual having problems. No holistic perspective of family/network/school"
	"Parents are an incredibly important part of children's treatment which mustn't be forgotten in cCBT"
2. Not suitable for everyone	"Well-suited for light problems among well-functioning children and families. Not for more severe problems"
	"cCBT can probably not replace all other treatment. It should be a form of treatment that can be used when suitable and not otherwise. Evidence is needed to determine what treatment is suitable."
	"It depends on age, severity, motivation and other skills/deficits. I don't think it works for everyone"
3. Human support	"They have to be able to contact an identified person for questions and support"
	"Children need support and should not be left alone with this"
	"There must be a responsible therapist involved"
i. Subtheme: reduced clinical information	"Harder to assess mood, hard to feel secure as responsible therapist if a don't see the patient regularly."
	"There is a risk that mood deteriorates during treatment and that it is not as easily discovered in cCBT"
ii. Subtheme: The therapeutic meeting	"My opinion is that the alliance is very important for treatment"
	"I think that contact with another person is an important part in being helped, regardless of what your problems are"
	"Many young people spend too much time in front of the computer and need to practice how to express their thoughts and feelings together with another person"

psycho-education/prevention', which was not as a perceived advantage in this study but which overlaps with the theme regarding 'Not suitable for everyone', identified under concerns. The differences in identified themes could be due to the fact that participants in the present study solely consisted of clinicians working in child and adolescent psychiatry, unlike in Stallard et al. where clinicians came from different settings.

Most participants had no knowledge or experience of cCBT. Increased knowledge of recent research findings, for example that comorbidity can be effectively addressed in cCBT for depression (Johansson et al., 2012), or that ratings of therapeutic alliance in cCBT are similar to ratings in face-to-face therapy (Anderson et al., 2012), might further increase the positive ratings for cCBT. In accordance with Cook et al. (2009), who stated that methods not compatible with the clinician's values, education or style could be an obstructive attitude towards new treatments, a larger proportion of clinicians with CBT-orientation thought cCBT would be effective and could consider using it themselves.

To our knowledge, this is the first study exploring the attitudes of CAMHS clinicians towards cCBT where participants have been selected through stratified randomization of CAMHS centers across the country. In Sweden, although research on cCBT is extensive, there are, to our knowledge no research on attitudes or knowledge regarding this subject among Swedish clinicians. Also, we have a high rate of responders, since the present study was conducted out in the CAMHS units, which increases generalizability.

4.1. Limitations

This study has several limitations. The sample size was small and although CAMHS from different parts of Sweden are represented, the relatively small number of participating centers means the results should be interpreted with some caution. The group classification, based on population density, was arbitrary and there might be other meaningful ways to divide CAMHS units into groups. As previously mentioned, the large number of analyses on effects of treatment orientation and rurality give makes it possible that the significant results on a few items might be due to chance. Thus, the significant findings should be interpreted with caution.

In Sweden, CAMHS units work with the most severe cases of mental health and might not come into contact with children with mild problems of for example anxiety and depression. This has probably affected the answers. Future research should also include professionals from schools and primary health care services in order to get a more complete picture of the prerequisites for dissemination. Another limitation is that the questionnaire systematically asked about interventions for children and adolescents. It would be more meaningful to separate the questions regarding to the age, for example 7–12 years and 13–17 years. Furthermore, the questionnaire uses the term 'cCBT', while internet-delivered CBT probably is more well known in Sweden. It might be that participants were confused by the usage of 'cCBT', even though it was explained in the introduction to the questionnaire that 'ICBT' was

Table 4
Themes in perceived advantages with CCBT.

Theme	Examples
1. Increased availability	"Access to CBT treatment regardless of where you live"
	"Accessible. Treatment could more easily be started, less resistance"
	"As a first step in severe cases, a way to reach the child/adolescent at home"
2. Effective form of treatment	"Reduced time spent on visits"
	"Cost-effective, time-saving"
3. Complement	"Good to keep working on homework in between sessions. Good during final phase and as relapse prevention"
	"As an extension/enhancement of existing care"
	"Good with structure that is foreseeable for children and adolescents – including goals"
4. Appealing medium	"Many children and adolescents are accustomed to "talking" through a computer"
	"Text, images, availability, program/audiofiles can be used"
	"Programs/app:s could be made interactive and motivate patients/children more"
5. Alternative way of communication	"Computer-based information could facilitate for many with communication problems"
	"Maybe it is easier to talk about hard things when you are not sitting face-to-face"
	"Easier to be honest in writing"
6. Advantages with self-help	"Gain knowledge about your disorder. Tools to cope. Increased control."
	"I think a program like that could strengthen the child's/adolescent's self-esteem by being able to cope with and affect their mood"
	"less shameful than going to CAMHS"

included in 'cCBT' and that this has affected their answers. Also, the questionnaire was not back translated to English, which could raise questions about the comparability between the original and the translated version.

One unit was not able to participate as planned and completed their questionnaires without the brief information that the other units were given. They then sent in their completed questionnaires by mail. This is, however, unlikely to have affected the responses in any significant way.

4.2. Conclusions

This study adds to the limited literature on attitudes towards and acceptability of cCBT. The emerging picture is of a mainly positive attitude, particularly towards prevention and treatment of mild to moderate problems. There seems to be differences in attitude and acceptability depending on treatment orientation, but no clear effect of rurality could be seen. Perceived advantages regarding computers as an appealing medium for children and adolescents, and concerns regarding the lack of human contact seem to be recurrent in the literature. Overall, prerequisites for dissemination are promising. Future research should include professionals in other settings, for example schools and primary health care, potential patients and should also include more detailed questions about factors that could influence attitudes, for example type of disorder and age of the youth. These questions could be important to investigate before considering a wider dissemination of cCBT.

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