Primary-care patients' expectations and experiences of online cognitive behavioural therapy for depression: a qualitative study

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Abstract

Objective To explore expectations and experiences of online cognitive behavioural therapy (CBT) among primary-care patients with depression, focusing on how this mode of delivery impacts upon the therapeutic experience.

Design Qualitative study, using repeat semi-structured interviews with patients before and after therapy. The study was conducted in parallel with a randomized controlled trial examining the effectiveness and cost-effectiveness of online CBT for patients with depression.

Participants Twenty-four patients with depression recruited from five general practices in southwest England, who were offered up to 10 sessions of CBT, delivered via the internet by a psychologist.

Results Most participants accessed the therapy from their home computer and found this to be a major advantage, in terms of convenience and fitting therapy into their daily routine, with any technical problems quickly resolved. Two key themes regarding expectations and experiences of online CBT were: developing a virtual relationship with a therapist, and the process of communicating thoughts and emotions via an online medium. Online CBT seems to be acceptable to, and experienced as helpful by, certain subgroups of patients with depression, particularly those who are familiar with computers, feel comfortable with writing their feelings down, enjoy the opportunities to review and reflect that written (or typed) communication offers are attracted to the 'anonymity' of an online therapeutic relationship and are open to the proactive requirements of CBT itself. However, on-line CBT may feed into the vulnerability of depressed people to negative thoughts, given the absence of visual cues and the immediate response of face-to-face interaction.

Conclusions Online CBT has the potential to enhance care for patients with depression who are open to engaging in 'talking' (or typing) therapies as part of their treatment. If online CBT is to be

provided via the NHS, it is important to establish patient preferences regarding this mode of delivery and ensure that referral practices are appropriately targeted. The results of our main trial will provide evidence regarding the effectiveness and cost-effectiveness of receiving therapy via this modality.

Introduction

There is increasing interest in the role of cognitive behavioural therapy (CBT) in the treatment of depression, with some evidence that CBT has the potential to improve long-term outcome.[1] Public attitudes to psychotherapy are relatively favourable compared to views of antidepressants.[2–5] Most people with depression are diagnosed and treated within primary care. However, provision of CBT and high-quality counselling within UK primary care is limited and there is uncertainty regarding the long-term advantages of counselling over usual GP care.[6,7] Access to CBT via secondary care is also difficult, particularly for primary-care patients with relatively uncomplicated depression who might benefit from it. The NICE guidelines recommend greater access to CBT.[8] Layard[9] has called for the development of psychological treatment centres to improve access to CBT. However, long waiting lists for CBT remain in many areas of the UK.

Computerized and online forms of therapy offer the potential to enhance patient access to CBT. There are a growing number of computerized self-help CBT packages that aim to enable patients to learn CBT techniques without direct access to a therapist, such as 'Beating the Blues', 'MoodGym' and 'Living Life to the Full'. A number of studies have tested the effectiveness of such packages, with varying results.[10–12] However, to date there have been no studies of the effectiveness and acceptability of CBT provided 'live' online by a therapist.

To evaluate the clinical and cost-effectiveness of online CBT for primary-care patients with depression, we chose to conduct a randomized trial (the IPCRESS trial), comparing online CBT provided by a 'live' therapist with a waiting-list control. In parallel with the trial, we used qualitative methods with the aim of evaluating the acceptability of this mode of delivery from the perspective of patients. The value of qualitative methods within randomized trials for evaluating trial process and patients' experiences of interventions is well recognized.[13,14] We chose to conduct a qualitative study related to the IPCRESS trial for three specific reasons.

First, although some qualitative research exists on patients' experiences of face-to-face CBT and patients' experiences of guided self-help for depression,[15–17] we are not aware of any qualitative studies on patients' experiences of CBT delivered 'live' online by a therapist and how engaging in such therapy via a computer impacts upon the therapeutic experience.

Second, some exploratory quantitative studies have compared online vs. face-to-face psychotherapy or counselling. They have suggested that a 'working alliance' between therapists and users can be developed online and theorized that this is due to the 'disinhibiting effect' of online communication.[18] However, Mallen *et al.*'s[19] review of the online counselling literature notes mixed findings: some studies report no difference in therapeutic alliance between online and face-to-face interventions; others find a difference in favour of face-to-face therapy. There remains a need to elucidate using qualitative methods the facilitators and barriers to any working alliance within online CBT from the patient's perspective, and the nature of any 'disinhibiting' or 'inhibiting' effects of communicating via this modality.

Third, we need to understand more about patients' expectations and experiences of this novel medium, should it be considered as a future candidate for NHS provision. While there is a growing literature on patient satisfaction with online counselling, there are few qualitative studies and, as far as we are aware, no studies of the acceptability of CBT delivered in this way.[19]

Methods

We conducted a qualitative study in parallel with, rather than nested within, the IPCRESS trial because of concerns that interviews might have an additional therapeutic effect for trial participants. We received ethical approval from an NHS research ethics committee, the Royal Free Hospital and Medical School Research Ethics Committee (London).

The intervention for both the trial and qualitative study was online CBT provided by the website PsychologyOnline.co.uk that delivers 'live' therapy from a qualified psychologist for anyone with computer and internet access (http://www.psychologyonline.co.uk). On consenting to participate in online CBT, patients were given a manual that provided information on how to access therapy sessions, including booking and 'attending' appointments. The patient and therapist agreed an appointment time when they both logged on to the website; they then interacted by typing in their questions and answers in a format akin to instant messaging. Individual patients and therapists agreed the interval between subsequent therapy sessions.

Sample

For the qualitative study, patients with a GP diagnosis of depression were recruited from five general practices in the Bristol area that were not participating in the main trial. We purposefully sampled practices in a variety of locations, both inner city and semi-rural, affluent and deprived. Patients were recruited via two methods (mirroring the recruitment procedures used in the trial): through a verbal introduction to the study by the GP within a consultation, followed by a letter and telephone call from the researcher to interested patients; or through searches of electronic patient records, followed by mailed invitation letters to eligible patients with a request to contact the researcher. While sampling of patients had to be reasonably pragmatic (i.e. all patients who were invited and agreed to participate were included), we sought to include patients with a range of ages and gender.

Patients' diagnosis was confirmed prior to participation using the CIS-R schedule[20] delivered by the researcher (AB) before the first interview. All participants had an ICD-10 diagnosis of depression. All had a new episode of depression and almost all were suffering symptoms of at least moderate severity using the Beck Depression Inventory (BDI) (Tables 1 and 2).[21] Patients with depression were classified as follows according to their BDI scores: mild 14–19, moderate 20–28 and severe 29–63.

Table 1 Beck Depression Inventory scores pre- and post-therapy for participants who completed therapy

Participant ID	Number of online CBT sessions	Pre-therapy BDI score	Post-therapy BDI score
P2	9	41	21
P3	10	24	9
P7	10	43	4
P8	10	19	2
P9	9	52	14
P12	10	37	Lost to follow-up
P14	10	32	20
P15	10	38	35
P16	10	23	4
P18	10	24	10
P19	10	19	Declined BDI
P21	10	44	16
P22	10	48	11
P23	6	29	5

Note: P13 does not appear in this table and in Table 2 as this participant was interviewed pre-therapy but did not start online therapy due to medical reasons.
CBT, cognitive behavioural therapy; BDI, Beck Depression Inventory.

Table 2 Beck Depression Inventory scores pre- and post-therapy for participants who withdrew from therapy

Participant ID	Number of online CBT sessions	Pre-therapy BDI score	Post-therapy BDI score
P1	2	29	16
P4	1	41	47
P5	4	37	18
P6	2	23	6
P10	7	37	36
P11	1	27	24
P17	4	33	Declined interview and BDI
P20	2	39	1
P24	6	38	30

CBT, cognitive behavioural therapy; BDI, Beck Depression Inventory.

Data collection

Data were collected through repeat semi-structured interviews with patients who were offered up to 10 sessions of online CBT. Interviews were conducted by AB between February 2006 and April 2007, and were conducted at two time points: prior to and after therapy. Patients who did not complete therapy as planned by the therapist were interviewed shortly after they withdrew. All participants were interviewed within a couple of weeks after their recruitment into the study and completion of or withdrawal from therapy, to enable them to reflect in depth on their expectations and experiences. Interviews were conducted in participants' homes, using a flexible topic guide. Pre-therapy interviews explored patients' expectations of online CBT and post-therapy interviews examined their actual experiences. Pre-therapy interviews lasted on average 55 min (range 31–107 min) and post-interviews lasted on average 72 min (range 45–112 min). All interviews were audio-recorded, anonymized and transcribed verbatim.

Data analysis

Preliminary analysis commenced alongside early interviews and progressed iteratively. A thematic approach was used, drawing on the constant comparative method.[22] Initially, the data from the two time points (pre- and post-therapy) were analysed separately; then data from both time points relevant to each identified theme were brought together and compared. Open coding of transcripts generated an initial coding framework, which was added to and refined, with coded material regrouped as new data were gathered. The codes were gradually merged into broader categories and through comparison across transcripts overarching themes were identified. Data within themes were scrutinized for disconfirming and confirming views across the range of participants.[23] Data analysis was led by AB and AS, two social scientists experienced in qualitative methods. AB coded and analysed all interview transcripts, using the software ATLAS.ti to aid data organization and coding. AS coded a subsample of transcripts from each time point (pre- and post-therapy), and compared and discussed these codings with AB. New codes were incorporated into the framework, or similar codes were merged and the agreed framework was applied to all the transcripts. The coding framework was discussed with SK (the co-ordinator of the main trial) and DK (principal investigator of the main trial and a GP practising CBT) at regular intervals and all authors agreed the final themes.

Results

Twenty-four patients with depression were interviewed prior to therapy and 20 were interviewed post-therapy. Of the 24 patients, nine withdrew from therapy but five of these agreed to participate in a second interview. Reasons for not being re-interviewed and a summary of participant characteristics are shown in Table 3. Six participants reported receiving face-to-face counselling or group psychotherapy prior to participating in the study, and most spoke negatively about such experiences, citing reasons such as dislike of the counsellor, cost and feeling that face-to-face counselling was too 'intense'.

Most participants accessed online CBT from their home computer and found this to be a major advantage. They valued not having to travel to appointments, which for some was a deciding factor in their decision whether to continue with therapy. The minority who accessed online CBT in other settings (e.g. used a relative's computer) found it harder to engage with the therapy, due to concerns about privacy and being interrupted. The convenience of the sessions, in terms of timing and fitting into one's daily routine, was perceived positively. Few technical problems were experienced and these were quickly rectified either by the patient or the psychologist. Between therapy sessions, the online medium helped to ease and speed up some aspects of communication, such as being able to email CBT homework to the therapist prior to the next appointment.

Regarding perceived helpfulness of the CBT approach, there was a range of experiences: some

Table 3 Participant characteristics

Characteristic	No. participants
Age (years)	
20–29	6
30–39	5
40–49	5
50–59	5
60–69	3
Gender	
Male	7
Female	17
Access to internet∕broadband	
Yes	19
No*	5
Completed online therapy?	
Completed therapy	14
Withdrew from therapy	9
Did not start therapy (for medical reasons)	1
Antidepressant use	
Taking antidepressants	10
Not taking antidepressants	13
Unclear whether patient taking[†]	1
Previous use of face-to-face psychotherapy∕counselling	
Use of counselling	5
Use of counselling and group therapy	1
No previous face-to-face therapy	18
Interview status	
Pre-WebCBT	24
Post-WebCBT	20
Lost to follow-up interview[‡]	3
Did not start therapy, so no post-interview	1

*Participants who did not have direct access to the internet used a relative's computer (P1), used the internet at work (P3, P11, P16) or the local library (P14) to receive online CBT.
[†]Unclear whether patient taking antidepressants purely for depression, as using other antidepressants for pain relief for a long-standing back problem.
[‡]Reasons for not participating in a post-therapy interview included complex social circumstances, moving away from the area and declining an interview.

participants experienced benefits and completed therapy as planned by the therapist, while others did not and withdrew. Those who experienced benefits cited examples such as: feeling happier and less agitated; having improved sleep and better relationships; and gaining insight into possible causes of their depression. Beneficial aspects of CBT reported by patients included the individualized approach and homework (e.g. thought records and mood sheets), which provided them with useful tools to manage their

thoughts and emotions. Some were unsure whether online CBT had benefited them, finding it difficult to decipher whether it was changes in life circumstances, the therapy, antidepressant medication or a combination that had helped. Others were certain that the CBT approach had not helped, arguing that they still felt the same, and occasionally describing negative aspects of therapy, such as revisiting things that they had already 'dealt with' and difficulty incorporating CBT techniques into daily life, given the pro-active requirements of the approach (Tables 1 and 2 give details of participants' scores on the BDI prior to and after therapy, for those who completed and withdrew from therapy, for context).

The main focus of this article is patients' expectations and experiences of receiving online CBT, in particular how this medium impacts upon the therapeutic experience. We identified two major themes, each of which is illustrated with extracts from pre- and post-therapy interviews. Illustrative quotes reflecting the full range of expressed views are presented in Boxes 1–5, with relevant quotes cross-referenced within each theme (e.g. labelled 1a). Each quote has a participant identifier, indicating whether the interview was pre- or post-therapy, gender, age group, whether they completed therapy and the number of therapy sessions undertaken. Perhaps surprisingly, there were no strongly discernable patterns within the data regarding a relationship between participants' socio-demographic backgrounds and their expectations and experiences of online CBT. Preferences regarding issues, such as development of relationships in the absence of face-to-face contact, mode of communicating (written or spoken) and writing feelings down, were more important in shaping their views of online CBT, as revealed through the text and quotations within each theme.

'Talking to a machine': developing a virtual relationship with a therapist

The first theme concerns participants' expectations and experiences of developing a relationship with a therapist via a computer (Boxes 1–2). Prior to starting online CBT, other than the

Box 1 Developing a virtual relationship: expectations

a) 'I don't think you would get the same feeling as if you were one-to-one in a room. You get more, you get to know the other person, so in a way you would. To me it would be like talking to a machine' (P21 Pre, female, 50–59, completer, 10 sessions)

b) 'It's perhaps more difficult for them to offer the right advice because they're not seeing you. I see that is perhaps the one disadvantage' (P19 Pre, male, 60–69, completer, 10 sessions)

c) 'I don't know…I'll be nervous…it'll be strange…I suppose it'll be just like talking to someone you don't know…Well, people could not tell, say how they really feel. If you're with someone one-to-one, say yeah, like now and I said something and you thought well, you could tell really if it was bothering me or if, if I just said that because I didn't want to talk about things And maybe you encourage me to talk about it more, whereas maybe on-line I could just say: "Oh, I don't want to think about that." And the person the other end wouldn't really, really know' (P20 Pre, female, 20–29, withdrew from therapy, 2 sessions)

d) 'There might be some issues of trust, with people feeling, you know, that they're not really talking to a psychologist if they can't see them' (P12 Pre, male, 30–39, completer, 10 sessions, no post-therapy interview)

e) 'I'm actually excited that there might be something that might do something for me, that I can actually commit to, because I can commit to it, if there's nobody, if I don't have to face someone then it's easier to commit to, and it's easier to be honest as well because you're not, you know, if you say something to someone's face and it's something really personal that you care about, you know, whether you know you're doing it or not, the way they react will probably frame and what you say afterwards. You might modify what you're saying without knowing it' (P4 Pre, female, 40–49, withdrew from therapy, 1 session)

minority who reported previous negative experiences of face-to-face therapy, participants often expressed an intuitive preference for face-to-face delivery and felt concerned about the ways in which the absence of such contact might impact upon the therapeutic relationship.

Expectations

Prior to therapy, not knowing and not being able to see the therapist led some patients to question whether a committed and trusting relationship could be developed online. They felt that the absence of face-to-face contact might lead to an 'odd', impersonal or mechanical relationship, like 'talking to a machine' (1a).

Several participants speculated that patients undertaking online CBT could be less committed to the therapy because a meaningful and accountable personal relationship had not been established. Furthermore, they questioned whether psychologists would be able to offer the 'right advice' without personal knowledge of the patient, which might be easier to acquire face-to-face (1b). Related to this, there was a questioning of whether patients could potentially 'hold back' and disclose less online. Patients anticipated that the opportunity for therapists to probe more deeply might be diluted in an online relationship and patients could more easily

choose not to reveal issues in the absence of visual cues (1c).

For some, there was fear that trust could be compromised in the absence of face-to-face contact, one patient articulating a worst-case scenario of fraudulent therapists, given the difficulties of monitoring the internet (1d). However, others were attracted to the idea of the anonymity of online CBT, feeling that this might enable them to commit more. They anticipated that they might be more willing to 'go deeper', be more honest, disclose more and feel comfortable about doing so to someone they would never meet face-to-face (1e).

Experiences

After receiving therapy, diverse perspectives were expressed regarding actual experiences of developing an online therapeutic relationship. Initially, many patients found it challenging that they were not able to see the therapist. But most, even some who withdrew from therapy, were able to establish a good relationship via the computer over time. Participants acknowledged that any therapeutic relationship could feel awkward in the early stages; this experience was not necessarily unique to online therapy (2a).

Participants' fears about the mechanical nature of an online relationship were often

Box 2 Developing a virtual relationship: experiences

a) 'After a couple of sessions when it felt dry and then starting to feel that it was fluid, but I don't think that's to do with the medium, I think that's actually just to do with communicating with someone there…We had built a relationship. It took a while but yeah, I was pleased with the way things were going at the end. Yes, it was a bit difficult at first because you know, it's …you're just communicating with a computer and you don't know the person at the other end, who you're communicating with.. I was e-mailing, and I had a picture of somebody else in my mind and I was convinced I was talking to somebody else, so you know, you've got that potential, sort of trying to get over that sort of not knowing, but I guess, given the constraints and the fact that the person's not there, it was, it worked I would say, yeah' (P14 Post, male, 30–39, completer, 10 sessions)

b) 'I was surprised, I felt as though it was flowing quite well, which I didn't think it would. And I warmed to him [psychologist], you know, straight away, you can do that over the internet…I think you could build up a good relationship over the Internet, I was quite surprised' (P1 Post, female, 40–49, withdrew from therapy, 2 sessions)

c) 'I don't honestly think I could have sat down with someone and talked to them face to face, I don't think I'd have had the confidence to do that. I'd talk to them but I think I'd have expressed what I express on a computer, having the therapy on there. So I don't think it would have worked as well because I wouldn't have been as honest with them' (P2 Post, male, 30–39, completer, 9 sessions)

d) 'I enjoyed the anonymity..you know, I think it was, to start off with, but come the end, it didn't worry me. It didn't worry me, because I, I didn't feel it was anonymity come the end. I thought I knew [psychologist's name], I thought I knew the lady that I was talking to, you know, as if I was talking to her one-to-one, face-to-face, that's what it felt like. I didn't feel like I was typing things on a computer, you know, it didn't feel like that at all, and I've never done that before on a computer; talked to anybody on, on a computer like that and yeah, it was, it was okay' (P16 Post, female, 40–49, completer, 10 sessions)

e) 'I'm not sure there was a relationship. And that, because of that, part of the reason for that was the lacking the face-to-face, it's like having a telephone conversation isn't it? You don't have the same closeness as you would meeting somebody round a table, it's inevitable. And that, that's got to impact on the benefit of the therapy…I didn't build a relationship with him' (P19 Post, male, 60–69, completer, 10 sessions)

f) 'I didn't feel comfortable with it. I think that what I need, or what I needed was to talk to someone one-on-one rather than talk through a machine…I could see the idea of it, and I think it's a good idea but I personally didn't feel comfortable with it…the idea I think is good. But it wasn't for me' (P24 Post, male, 50–59, withdrew from therapy, 6 sessions)

g) 'I don't know if it would have been the same to if I'd been face-to-face with the same person. And that's nothing against her [psychologist] it's just sometimes you can't always relate to everybody and I don't know if it was that, or if it was the computer, I honestly don't know' (P20 Post, female, 20–29, withdrew from therapy, 2 sessions)

h) 'Are they concentrating on what you're saying? Are they focusing really on what you're saying or are they doing something else…are they on the telephone, having a cigarette, maybe not taking me seriously' (P5 Post, female, 20–29, withdrew from therapy, 4 sessions)

unrealized, several being surprised at how quickly rapport developed. One participant likened it to a friendship. Some who had previously been sceptical about online therapy were surprised at how quickly they 'opened up' and developed a meaningful relationship (2b).

Several participants felt more able to disclose and openly discuss issues with the therapist because of the anonymity of the relationship. Relating via the internet helped reduce embarrassment, and made them feel more relaxed and able to be honest. Most, but not all, of these were patients who had been attracted to the idea of an 'anonymous' relationship prior to starting therapy (2c). For others, while the relationship had felt anonymous in the early stages, the depth of relationship built meant that it no longer felt anonymous by the end of therapy. The relationship was transformed and felt as if it were face-to-face (2d).

However, not all patients developed meaningful online relationships; some of these continued with therapy, but most withdrew without experiencing benefit. These participants typically felt frustrated at the quality of the relationship and perceived it would have been better face-to-face. They experienced an absence of closeness within an overly formal or 'cold' relationship and felt that this inevitably impacted upon the experience of the therapy (2e).

Those who withdrew from online CBT typically did so because it was 'not for them'. While

Box 3 Typing versus talking: expectations

a) 'I tend to do when I'm on the internet, I tend to really express myself, because I've, I've written diaries for years and I express myself more in writing than I probably do in speaking…I'm quite okay talking about how I feel but I probably would bring out more if I wrote it' (P5 Pre, female, 20–29, withdrew from therapy, 4 sessions)

b) 'I can take a lot more away with me through the computer…I know I can probably get whole feedback of our session…go in there, get all, you know, whole conversations going between us and I could see responses, I could see it in black and white as well, and I'm somebody who likes to read, re-read and get it to sink in and highlight and mark and come back to…unless you're very retentive, which, at this moment in time I am not, personally I prefer to sit down and read it and be able to digest it. I keep digesting it in my own time' (P7 Pre, male, 50–59, completer, 10 sessions)

c) 'Will you be able to explain by keying in, will you be able to clearly explain exactly what you want to say? If you get a message back that indicates that they haven't understood quite what you were trying to say, you can then say "Well no, you've actually got me a bit wrong there"…sometimes it can be a bit difficult to verbalise it and sometimes you can manage to verbalise, but that is a different thing to, to have to actually construct sentences about your, your feelings and, you know, string words together. I was going to say on paper, but it is sort of like on paper, isn't it?' (P10 Pre, female, 60–69, withdrew from therapy, 7 sessions)

d) 'I'm not sure about writing my feelings down, you know, I'm not sure if I'm going to put everything down or get things across so easily, you know, and like on the internet are you going to…you know, by talking to somebody, you can see their state of mind and over the internet you might not be able to pick up on things so easily…if they're fiddling or if they're, you know, or if they're agitated or how they look, do they look disheveled or…are they crying?' (P1 Pre, female, 40–49, withdrew from therapy, 2 sessions)

e) 'It's a barrier because you see, I can't find the right words, I don't know how to spell it right, "don't worry about it, just put down the way it sounds to you, put it down" and they would still find that a huge barrier, so what we're looking at, and I hate to say it, is people who are educated with computer skill, who've got literacy, etc, etc. That's not helpful, is it?' (P7 Pre, male, 50–59, completer, 10 sessions)

recognizing the potential value of this form of therapy, their experiences bore out their prior worries that they would not be able to see the therapist as a person. They had a strong preference for a face-to-face relationship, and felt that they could not establish a meaningful therapeutic relationship online, although some expressed positive feelings about their brief encounter with their therapist (2f). However, some patients who withdrew found it difficult to disentangle whether the lack of relationship was due to the online medium or was simply a matter of not relating well to the particular therapist, which might equally have occurred face-to-face (2g).

Absence of face-to-face contact also led to some speculation whether the therapist was 'multi-tasking' by undertaking parallel activities during therapy. This included the worry that therapists might be seeing multiple clients simultaneously – or 'two-timing' the patient. For some participants, particularly those who withdrew from therapy, this impacted on the therapeutic relationship by causing them to doubt the therapist's commitment (2h).

Typing versus talking: expressing oneself, reflecting and being understood through an online medium

The second theme concerns participants' expectations and experiences of communicating via the online medium, in particular issues related to expressing oneself in written form, reflecting and being understood (Boxes 3–5).

Expectations

Patients who were attracted towards the idea of online therapy tended to be those who felt comfortable more generally with communicating via the internet and expressing themselves in written form, for example through keeping personal diaries (3a). It was particularly attractive to patients who described themselves as liking to read, re-read and reflect on things in order to make sense of them. They anticipated that that having a written record of a therapy session would enable them to review it in their own time, to let it 'sink in'. They wondered if having time to think before typing a response, and seeing their response on the computer screen, might

Box 4 Typing versus talking: experiences

a) 'it got progressively better. Yeah. The communication was quite easy, and it sort of went up and down and ebbed and flowed a bit, which it does in a conversation. It was good when I started to relax and didn't bother doing capitals and things like that, and just wrote away like, you know, just write it and stop trying to think you're writing a letter or something' (P14 Post, male, 30–39, completer, 10 sessions)

b) 'I really felt actually, that she realised when things were getting difficult and I actually felt she was very sort of sympathetic and as I say, very, very measured and "Are you alright to continue, would you like a break, would you?", you know. I don't know if she ever said "Would you like to end the session? Is it too difficult to go on?" but I think … I just felt that despite not having that face-to-face contact, she was very sort of sympathetic to my emotions just by what I was picking up on what I was writing' (P18 Post, female, 40–49, completer, 10 sessions)

c) 'I felt like I was just chatting away, that was the good thing, I was talking to someone who was listening to me…I was talking to a person. I wasn't typing on a machine' (P16 Post, female, 40–49, completer, 10 sessions)

d) 'he [the psychologist] was limited by not being able to see me and meet. I don't think he could make a full assessment of my condition because I don't believe that I [could] explain my condition simply in words. It all about manner and body language which is missing and that's where it falls down.…I don't think he [psychologist] could fully understand. Sometimes he didn't seem to get the point I was making, he left me feeling frustrated' (P19 Post, male, 60–69, completer, 10 sessions)

e) 'at first, I was quite conscious of, of writing proper English, so therefore what I was writing wasn't being misunderstood, because it's a cold slab of writing, isn't it? There's no emotional, you know. If I put on there: "[name] was smiling at this point". Or, "[name] is giggling", or "[name] is frowning", at least you would get the context of what was being said, but it's not' (P7 Post, male, 50–59, completer, 10 sessions)

f) 'I thought "I can't write that", I thought "I didn't feel like that, I didn't do that, did I?" It was really funny some of them, I was "Why was I that angry over that?" and "Why was I that upset?" "Why was I that?" actually a lot of them, "Why did I get so upset?"' (P1 Post, female, 40–49, withdrew from therapy, 2 sessions)

g) 'It was very useful to have all the notes afterwards, because I used to read them, re-read them, read them and re-read them. What I used to do as well is I used to e-mail them to my partner and then I'd go over on a weekend. We'd go and sit down and discuss what went through' (P7 Post, male, 50–59, completer, 10 sessions)

h) 'I felt the session time was short, that was my personal view though. And a lot of people might say it was too long, but to me, it was short. By the time you were asked a question, I felt I had to sort of type quickly to try and get more in, to try and get more in' (P7 Post, male, 50–59, completer, 10 sessions)

i) Participant: 'It's not as fluid as a conversation, it's, it's much more, much more, I don't know, straitjacketed somehow in that respect.
Interviewer: And how did that feel?
Participant: Well, in some respects it's good, because instead of just bouncing back with a response, you had to actually read
through what was said and think about it before you typed in your response, so I suppose in some ways it makes you think about, think about what you're doing and what you're going to do for longer than you would if you were talking to somebody
directly' (P3 Post, female, 40–49, completer, 10 sessions)

j) 'I actually quite liked it in some ways because I think there, there was sort of one, one of the sessions where I'd had a very difficult friendship break-up and I was able to tell that story without breaks, which I think if I'd been on a face-to-face contact, it would have been sort of split into "and how did you feel about that?" and "would you like to tell me more about that?", but I was able to just write it, spill it out and it was done' (P18 Post, female, 40–49, completer, 10 sessions)

k) 'I think the difference is when you're typing on to a computer you have to shorten what you want to type…I mean, you could sit here and tell someone how you're feeling…and it could take you five minutes…but on a computer you haven't got the time or space…you haven't got the time to type out everything on how you're feeling' (P2 Post, male, 30–39, completer, 9 sessions)

help them to communicate clearly, particularly at a time when they were finding it difficult to retain things and formulate their thoughts (3b).

There were various expectations about whether one might truly be able to express feelings and be understood through an online medium. Some patients anticipated that they would be more able to express themselves through writing (or typing) compared to talking. However, others worried that they might omit important things or express them in the wrong way in written form, and be misunderstood by

Box 5 Typing versus talking: experiences

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a) 'I thought her answers were incredibly measured; that there wasn't a quick firing back, it was, I felt very measured responses, which I found really useful, you know, there seemed to be a sort of time block between me putting a message out and her sending something back. And I, I found that really reassuring, that there wasn't a quick firing back like, you know, the kids do with MSN-ing. And I found that important. I mean, on the other hand you can be cynical and think maybe she's gone away and made a cup of tea. But I didn't get that sense at all, but, but I thought it was a sort of very measured approach and that was important.' (P18 Post, female, 40–49, completer, 10 sessions)

b) 'on the internet...I think it's because of the response times, it's all of a sudden you're at the end, because sometimes the response was so long that … I know she wouldn't have been, but I almost felt like she had another session going on with someone else because the response was just so long [right, okay], you know, it was quite frustrating because I was thinking, well a) lot of time's being wasted and b) it's, it's quite difficult if you've just said something and you're waiting for ages for someone to say something' (P20 Post, female, 20–29, withdrew from therapy, 2 sessions)

c) 'But sometimes you could be waiting for quite a while for the response to come back. Or I'd find myself you know thinking of other things and like just not being completely, whereas I suppose when its person to person you can't, you know, it's incredibly rude if you start doing something. Do you know what I mean? So you're kind of like held there, sometimes, that was it, sometimes you lose your concentration while you're waiting, you know what I mean?' (P8 Post, female, 20–29, completer, 10 sessions)

d) 'I didn't feel it was intense online, you know, you couldn't quite see how upset I was or how much it meant to me certain things, you know, and … you know, you'd type something and then he'd say "Well we'll get back to that", and you felt as though, I thought no that's … that was a waste then, typing, you know. When you talk to someone, it comes out quick, you say "Right, we'll go back to that" and it's like two seconds, but online it's a lot longer, so it's more, yeah, it's more long winded. And it's a little bit frustrating for me, it's a little bit frustrating' (P1 Post, female, 40–49, withdrew from therapy, 2 sessions)

e) 'I didn't feel comfortable with it. I think that what I need, or what I needed was to talk to someone one-on-one rather than talk through a machine...I think it's a good idea but I personally didn't feel comfortable with it...it wasn't for me' (P24 Post, male, 50–59, withdrew from therapy, 6 sessions)

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the therapist, given that they often felt regret about things they had said or left unsaid during everyday verbal face-to-face interactions (3c).

While attracted to the idea of writing feelings down, there was uncertainty among some participants whether a solely written form of therapy could be helpful, or whether a combination of online and face-to-face interaction would be the best approach. Patients wondered whether the absence of non-verbal cues would hinder the therapist's capacity to pick up on the patient's state of mind (3d). Several speculated that communicating online might be more difficult for those less familiar with computers or less literate, which could mean that online therapy is only accessible to certain people (3e).

Experiences
After having online CBT, a central feature of patients' accounts of communicating online was the experience of writing feelings down. Several described how they had needed a few sessions to feel relaxed communicating in this way,

particularly those less familiar with computers. Those who withdrew from therapy often had difficulties finding the right words to express themselves. However, the majority of participants, particularly those who continued with therapy but also some who withdrew, felt able to tell their stories online (4a).

Patients' initial fears about not being able to make themselves understood were often not realized in therapy. The online medium was not necessarily a barrier to meaningful interactions. Several participants described how the therapist had been able to 'pick up on' their emotions, and that they had been able to experience empathy or sympathy through the therapist's typed responses, expressing how much they had enjoyed 'talking' to the therapist. For several, 'typing' was transformed into 'talking', mirroring the transformation of the therapist from 'machine' to 'person' described in the first theme (4b,c).

However, others experienced concerns that they had been misunderstood, in particular those who withdrew, and also a minority who

continued with therapy. In the absence of face-to-face cues, they worried how the therapist had interpreted what they had written, particularly in earlier sessions. They questioned the therapist's ability to understand their problems without visual cues (e.g. emotions as conveyed via facial expressions) and felt that the medium limited the opportunities to meaningfully convey feelings (4d). Some suggested that there was a need for alternative ways of communicating emotions via the computer, other than simply in words (4e).

Two aspects of communicating online that particularly impacted upon patients' therapeutic experience were: first, the *visual dimension* of being able to see their own thoughts and feelings, and the therapist's response, on the computer screen or print-out of the therapy sessions; and second, *time* within the online exchange.

As anticipated by several patients before therapy, *seeing their typed words* often prompted patients to re-evaluate and try to understand their past thoughts, feelings and behaviours, sometimes provoking them to question these. For some, this process provided 'distance', enabling them to see things in a new way (4f). Being able to save the therapy session to re-read subsequently also helped several patients by enabling them to review and reflect upon the therapeutic exchange. Having a record of the sessions over time enabled them to evaluate their progress. Some had used the session print-outs as a basis for discussing issues with a partner or other significant person (4g). However, having access to print-outs also led to the reflection that not much had been covered in 55 min compared to what might have been covered face-to-face, with a lot of time spent waiting for the therapist to reply (4h).

Time played a part in the online communication process both while patients formulated their responses to the therapist and while waiting for a reply, where the time delay impacted upon patients in different ways. Patients who had positive experiences found that having time to formulate and type their response gave them space to reflect and think. While some experienced this form of communication as less 'fluid' than face-to-face, they acknowledged the benefits of taking time to read the therapists'

response and think before formulating their reply (4i). Additionally, having no scope for verbal interruption by the therapist gave patients space to communicate without the disruption of further questions, as might be more likely face-to-face (4j). Conversely, some who were less familiar with computers experienced the time constructing their responses as restrictive and frustrating. They felt that they had reduced time to properly communicate, as they could not type as fast as they could speak and had to shorten their communication in order to convey salient issues within the limited time (4k).

In terms of the response delay from therapists, patients who had positive experiences valued how this enabled the therapist to provide considered and measured replies. However, several found the time delay disruptive, feeling impatient at the gap before response. They acknowledged that they had experienced sceptical thoughts, questioning whether the time delay enabled the therapist to multi-task and divert attention elsewhere (5a,b). Some patients noted that the delay waiting for the therapist's response caused them to lose concentration: during this time they either thought of unrelated issues (such as shopping) or worried that they had not articulated themselves appropriately (5c).

Some of those who withdrew from therapy expressed frustration that they had only begun to deal with deeper issues quite far into a session, because of the response time on both sides. Waiting for the therapist's response was described as 'dead time' or being 'left in limbo', and they experienced the therapy as more superficial, less 'intense' and less helpful as a result. After trying the online medium, such patients expressed a strong preference for face-to-face therapy (5d,e).

Discussion

Summary of main findings

This qualitative study shows that patients approach online CBT with a variety of expectations. Prior to therapy, several were enthusiastic, anticipating that the anonymity of the

online relationship might allow them to 'go deeper' and feel more comfortable about disclosing their thoughts and feelings. Others expressed reservations about their ability to develop an online therapeutic relationship; they speculated that the relationship would be more impersonal and, in direct contrast to the views expressed by the enthusiasts, saw opportunities for dishonesty or deception on both sides. They were concerned that they might be less inclined to disclose, and that the therapist might be uninterested or even fraudulent, which would be hard to discern online. Online CBT was not only more attractive to patients who were comfortable with internet communication, but also to those who liked to reflect on their own experience through writing, for example by keeping diaries. Understandable concerns were expressed by those who felt themselves to be less literate and less computer-literate; for some there was anxiety that they would not be able to express themselves and would be misunderstood.

After receiving online CBT, despite certain misgivings (notably among those who withdrew from therapy), many patients were surprised at the quality of the relationship they had been able to develop online, and those who found it challenging in the initial stages acknowledged that this was not necessarily peculiar to online therapy. Several found that the anonymity had enabled disclosure, with some experiencing a transformation of the relationship over time into one that felt 'face-to-face'. Those who withdrew from therapy often expressed a strong preference for face-to-face contact, being concerned about an absence of closeness and an inability to develop trust in the commitment of the therapist. 'Time' and the delays inherent in online communication impacted differently on participants; some valued the chance to review and reflect, others found the experience frustrating. In addition to allowing space to re-evaluate past thoughts and actions as communicated in typed form, the time delay allowed space for sceptical and negative thoughts, and reduced the length of meaningful interaction, which for some patients reduced the therapeutic opportunity. Some experienced difficulties expressing their emotions through writing and

doubted the therapist's ability to interpret them accurately in the absence of non-verbal cues. However, among those who withdrew, there was acknowledgement that it was difficult to discern whether the problems they experienced were related to the medium or the therapist and might equally occur face-to-face.

Strengths and limitations

A key strength of the study is its design. Participants were interviewed before and after receiving online CBT, which allowed evaluation of both expectations and experiences of patients, exploring change over time in views towards this novel mode of delivery. This informs our understanding of how patients might anticipate and receive online CBT if offered via the NHS. The participants were drawn from five general practices covering a broad social spectrum, enabling inclusion of those from less-affluent backgrounds.

However, participants were those who agreed to receive online CBT and may be more favourably disposed to this mode of delivery compared with other primary-care patients. As patient recruitment occurred via the GP or through patients' responses to mailed invitations, sampling was reasonably pragmatic and opportunities for more purposeful sampling were limited. While we included participants of a wide age range (from 24–66 years), the majority were female, which raises implications for the transferability of the findings. While sociodemographics characteristics did not seem to play a large role in shaping participants' expectations and experiences of online CBT, it would be interesting to conduct further work on the acceptability of this novel medium to a wider range of patient groups. This could target men and those from diverse ethnic groups, given that we were unable to include ethnicity as a sampling criterion.

Comparison with existing literature

To our knowledge this is the first detailed qualitative evaluation of this novel mode of delivery of CBT from the perspective of patients. Proudfoot

et al.[24] found that computerized CBT is more effective than usual care in the management of depression. However, computerized CBT is a self-help technique with no 'live' therapist and we are not aware of any qualitative work on patients' experiences of therapist-delivered online CBT. Anderson *et al.*[25] found weak evidence for the effectiveness of bibliotherapy for depression when it was based on a cognitive behavioural approach and patients were given some additional guidance. However, there was no qualitative evaluation of the acceptability of this approach.

To date, there has been limited qualitative work on the acceptability of psychotherapy to patients in the primary care. In their recent qualitative study of GPs' and patients' goals regarding the management of depression in the primary care, Johnston *et al.*[26] only briefly mention some patients' preference to be referred to 'counsellors or other professionals'. In terms of online therapy, we have already referred to exploratory research suggesting the potential for a 'working alliance' to be developed between therapist and client, facilitated by the 'disinhibiting effects of the medium'.[18] Our study develops these preliminary ideas by unpacking what those 'disinhibiting' and 'inhibiting' effects might be in the context of online CBT. For some patients, the online medium enables greater emotional disclosure and openness, while for others the online relationship is experienced as cold, formal and superficial. Furthermore, our study identifies the particular aspects of the online communication process that facilitate or hinder meaningful and therapeutic interaction, such as the experience of communicating emotions, reflecting and being understood. These findings may be relevant to online therapy in general as well as CBT online.

It is worth noting that writing about thoughts and feelings surrounding distressing experiences has been found to increase long-term health and psychological well-being.[27,28] Bargh *et al.*[29] have also found that some people feel more able to express their 'true selves' on the internet than in face-to-face interaction and that this can lead to the development of close online relationships.

Implications for practice and future research

Computerized forms of CBT may be a way of enhancing patient access to CBT, given the scarce access to face-to-face therapy within the NHS.[30] The findings of this qualitative study indicate that receiving CBT online from a 'live' therapist is acceptable to, and experienced as helpful by, certain subgroups of patients with depression: those who are familiar with (and have easy and private access to) computers, feel comfortable with writing their feelings down, enjoy the opportunities to review and reflect that written communication offers, are attracted to the 'anonymity' of an online therapeutic relationship, and are open to the proactive requirements of CBT itself, such as the need to do 'homework'. If online CBT is to be provided via the NHS in the future, it is therefore important to establish patient preferences regarding this mode of delivery and ensure that referrals are appropriately targeted.

However, on-line CBT may feed into the vulnerability of depressed people to negative thoughts; in our study, there was evidence of scepticism among patients about the therapist's commitment and genuineness, and anxiety that they might be misunderstood or have articulated themselves inappropriately. Visual cues and the immediate response of face-to-face interaction might overcome these hurdles and offer reassurance. There is some concern among clinicians that this mode of delivery might be unsuitable for those who are more severely depressed. A comparison of face-to-face and on-line CBT might resolve some of these questions.

Online CBT has the potential to enhance care for patients with depression who are open to engaging in 'talking' (or typing) therapies via a computer as part of their treatment. The results of our main trial will provide evidence regarding the effectiveness and cost-effectiveness of receiving CBT via this modality.

Acknowledgements

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