**Supplementary material**

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*Participants*

Theoretical saturation was defined as no new reasons for listening or believing emerging from the data and that each reason was sufficiently saturated and elaborated. The final new reason was coded at participant 13, though recoding revealed that the code was also relevant (albeit less centrally) to earlier participants. Two subsequent participants revealed no new reasons.

A pilot stage was used at the start of the study in order that diverse perspectives informed the theory generation. In discussion with a team of psychologists, qualitative methodologists and a patient advisory group, the characteristics listed were chosen in order to capture perspectives from participants who vary according to their level of experience managing the DTVs, level of severity of DTVs and level of functioning.

*Methods*

BS is a clinical psychologist who has worked with people who have experience of hearing voices. The participants’ expertise through their experience was emphasised within the preamble to minimise any potential power imbalance within the interview (see supplementary material B). The interviewer’s interpretation of description was checked using pocket summaries.

The final category structure was analysed by a patient advisory group to ensure that the structure was coherent from the perspective of those with lived experience of hearing threatening and derogatory voices.

1. **Semi-structured interview schedule. Edits were made in accordance with the emerging theory.**

We’ll now move on to the interview section of the meeting. This is an opportunity to share, in your own words what it is like experiencing negative or threatening voices. People use many different words to describe these voices, like ‘abusive’, ‘negative’, ‘harmful’ – what word would like use to use to describe these voice(s)?

Ok, thank you, so we’ll describe the voice(s) as the ‘ ………….[insert participants word]’ voice(s).’

So this part of the meeting is all focused on the ….. voice(s). I’m interested in all aspects of your experience, but my key interest is what it is that makes voices so convincing and believable, and therefore makes them difficult to ignore. Whilst I have some questions here to guide us, I am interested in anything which is particularly important to your experience - your own story. We can therefore use these questions flexibly.

These sorts of interviews are different to day to day conversations in that it may feel like you are talking more and me much less. This is very usual, but if it feels uncomfortable just let me know. Equally if there are any questions which you find upsetting please do let me know, we don’t want the interview to be a difficult experience for you so we could pause, move onto a new topic or stop completely at any time.

Before starting some people find it helpful to know a bit about me. I am a clinical psychologist, which means I offer CBT (talking) therapy. I work within a research team where we aim to design CBT therapies which are more helpful for people. I am currently focused on developing more treatments for people who hear abusive voices and this is the purpose of speaking to you today, so that we can learn how we might better help people.

1. I wonder if you could start by telling me your story of hearing voices. You can start wherever seems right to you.

*PROMPTS*

*-“When did the voice(s) start?”*

*-“Do you feel able to share what the voices say / said?”*

*-“What do/did the voices sound like?”*

*-“Do/did you experience visions, smells, tastes or touch related to these voices specifically?”*

*-“Do/did they have an identity?*

*-“How do you make sense of the voices?”*

*-Why do you think that you hear them?”*

*-“Where are the voices?”*

*-“Can other people hear the voices that you hear?”*

*-“Do/did you think anything triggered the voices in the past?”*

*-“Do/did they relate to your experiences?”*

*-“Did you tell anyone about hearing voices?” “what was that like?”*

*-“What was it like first making contact with mental health services?”.*

1. Identify cognitions driving engagement with voices: *“when do/did you find you listen(ed) to them?”*, “*why?”.*

*PROMPTS*

*-“Do/did you believe what the voices say when you hear them? Why / why not?”*

*-“And what about later, when they may be less intense?”*

*-“Has anything ever made you question the things that they say?”*

*-“How would they do what they say they will do?”*

*-“Have/did you ever thought about not listening to them?”*

*-If no choice but to listen – “why is that?”*

*-“How much time do/did you spend listening to them?”*

*-“Have you ever thought about trying to change their mind?” “why?” “why not?”*

*-“What have you tried?”*

*-“Have you been offered medication?* If yes: *“Did that have any effect on the voices?”*

1. The consequences of listening to voices: *“What happens/happened when you listen to the voice(s)?”.*

*PROMPTS*

*-“How do/did you feel when you listen to the voices?”*

*-At the time*

*-And afterwards*

*-“What do/did you do?”*

*-“What do/did you think about yourself / the world / other people?”*

1. Identify fluctuations in experience: *“Are/were there times when the voices are better?” “Are/were there times when the voices are particularly bad?”*
2. Elicit psychological mechanisms of change: *“Why do you think this changes/changed?”*, “*Have you ever thought about dealing with them in a different way? What was that like?”.*

*PROMPTS*

*-“How do/did you cope with the voices? …And what is that like?”*

*-For people with past experience of voices: “was there a particular turning point for you, when things became easier?”, “why do you think that was?”.*

1. Experience of therapy with voices: *-“Do/did you hear voices when talking to other people? What is/was that like?”*

*PROMPTS*

*-“What is/was your relationship like with your voice(s)?”*

*-“What do you think it would be like to have talking therapy (like CBT)?”*

*-“If difficult: Is there anything that a therapist could do or say to make it easier?”*

*-“What would you want/have wanted out of therapy?”*

*-“What would it be like if these voices were less present in your life?”*

1. Additional information about the experience of voice hearing: *“Is there anything else which is important to your experience of hearing voices which we haven’t spoken about yet?”*.

*PROMPTS*

*-“Do you have any advice for other people who hear these kinds of voices?*

*-“Any advice for health care professionals?”*

For the interviewer to check their understanding within the interview: “I might think about it like [*insert paraphrase*]… what do you think of that?” “How would you change that?”. Or, “what I’ve heard from you is [*insert paraphrase*], is that right?”

If interviewer thinks the participant might appreciate a break: “would you like to pause for a break here?”

To end: some people find it helpful to have a quick phone call after the session, just to see how they are feeling after sharing their experiences. Would you appreciate a call later today / tomorrow?

1. **Supplementary results:**
2. **Because they are threatening**

***1.1 And I listen because I’m fighting them***

The key reasons for fighting the voices include *“their stupidity and… unreasonability” (V1),* status *“you’re not going to rule over me” (V7),* how unjust it is *“do you know the film Shawshank Redemption, …it’s about a man who was jailed for the, for a crime he didn’t do. Um, somehow, I can relate to that” (V4)* and to get them to stop *“I just wish they would go away” (V13).* None of the participants described fighting the voices as a helpful approach. Instead, all were in agreement that *“it doesn’t end well” (V7).* It either keeps the voices at the forefront of attention *“I am making myself a lot more aware of the noise”* (V9), makes the voice more aggressive *“It gets more, more vicious you know”* (V15), or makes the person act in a way that is incongruent with their sense of self *“you just feel like crap, because it ain’t you”.*

***1.3 To negotiate with them***

Almost all participants noted how trying to change the voices mind was not effective (*“17 years later I know I shouldn’t have bothered”* (V1)*.* However one participant noted that negotiating timings was sometimes effective: *“if I’m out and about I will think in my head [..] ‘come on, you just had a half hour an hour ago like I really need to get this done’”* (V5).

Several participants had not attempted to negotiate with the voices either because it had not crossed their mind, because they argued with the voices instead *“I’m not reason[ing] with them, I’m telling them to fuck off” (V4)* or because they didn’t think they had the power *“I never thought that I had the power to stop er a chain reaction of voices anyway, so let alone put a stop to or change their mind” (V14*). One person tried, but did not continue *“Yeah, I did but I really struggled with that. I think it was partly, um being you know talking to yourself [laughing]” (V2).*

***3.1 Because they sound so real, why would you question it?***

V2 explained it was because they were *“as audible as you are now and that’s all you need”*. For V5 perceiving the sound coming from an external source made it more difficult to question: “*because I hear it from outside like I would hear a normal conversation. And I think he [a friend] can tune in and out of it may be easier than I can because it’s all inside”.* For V12 it was because the voices were accompanied by a sense of familiarity: “*They became more real to me and I couldn’t brush it away.. they had the gravity…that hadn’t been there before”.* ***Int:*** *“why was that, that they had that gravity?”* ***V12:*** *“er déjà vu, I had the same conversations and the same experiences previously”.* Whereas for others (V1, V13) it was the human qualities linked to the voice, for example V1 described: “*I was believing because their behaviour is fitting within [pause] human kind of emotional response.”.* For V15 it was the content and meaning of what was being said that seemed real and the rationale backing up the threats: “*the threats are so, so real”* Int: “*Real in what sense?”*V15: “*Well, they are threatening to kick my door in, they want to cut my hands off …They want to cut my [pause] ‘member’ off um because…I was with [Rachel] when I was um 20 or something, now she has killed herself and it’s your fault”.*

***3.3 Because I don’t have enough evidence to dispute the voices***

As a means of optimising the utility of the evidence gathered over time V5 shared her experience of keeping a log and using it to question the voices: “*I go back to and I remind myself, I read it and I’m like all these things, all these things and not one of them has happened. So, why is this one going to happen?”* but this was not always effective: “*Um and no amount of me trying to give a reason why it’s not real is making a blind spot of difference and no amount of my mates or my family trying to talk me down is making a blind spot of difference.”.* For V14 this rationalising was not accessible to him at all: “*You can’t just seem to switch off, you don’t, you don’t tend to have that, that mechanism that says, “hold on a minute [Dave], don’t you think that’s a bit bizarre? Somebody having a conversation with you, you have never met” or something like that, you don’t have those rational thoughts, you don’t, you don’t have, that doesn’t happen”.* V6 described building up the confidence to check out with friends whether he could trust his hearing “*I tell friends about it and they say I don’t hear anything you know there’s nothing there, it’s just your imagination*”.

**6.1 Because I’m tired and don’t have the energy to ignore them**

Sleep disruption included the voices disrupting sleep *“suddenly they woke me up, they need to interrogate me”* (V4), nightmares linked to the voices “*give me a way that he was going to capture me in the dream*” (V8) and a more pure insomnia presentation “*I was so sort of anxious and hardly sleeping really”* (V3). Problems with energy levels were also noted, with underlying causes reported to be the exhaustion of managing voices *“But doing this plus having ten other conversations you know…it’s extremely tiring.”* (V2), medication side-effects “*‘Interviewer: what was the reason for stopping them?’**V2:**‘I was just knackered all the time.’”* or mood instability “*so, the more manic I get the worse my voices get, because when I’m manic I don’t need to sleep”* (V5).

**6.2 Because I’m lacking self confidence**

For some participants problems with self-confidence came before the onset of the voices, for example V9 wondered whether her own lack of confidence may have contributed to the onset of voice hearing “*whether it stems from um [pause] just self-esteem being younger”.* Whereas for others the voices triggered confidence problems “*I just didn’t feel like the same person anymore”* (V13). V11 (who felt able to dismiss his voices) was the only person who described always being self-assured *“I think inner strength has always been in me um from a young age”.*

Some participants talked about confidence improving over time *“I used to like to be really negative about myself and have quite a low self-esteem and stuff. But now I just think I’ve grown a lot in who I am, and I have kind of [pause] learnt that I quite like who I am.”* (V5)*.* But that this takes work “*you reap what you sow”* (V7) and examples from daily life were perceived by participants as important to build confidence. For example V6 explained that “*socialising I would say helps…just I suppose working on my music and that kind of thing”* and this enabled him to “*I suppose I trust myself a little bit more to question things”.*

**6.3 Because the voices are confirming or embellishing pre-existing concerns**

Some participants agreed that these beliefs gave a reason to listen out for the voices: *“Sometimes I probably do yeah, which is probably even more perverted because I’m carrying on doing it. And I’m thinking about what people are thinking um about me, stuff like that. And wanting to, to engage in that”* (V14)*.* Some imagined the voice content, which triggered DTVs. V3 (who experienced paranoia) explained *“that’s how it sort’ve started…imagining in my head what people were saying and hearing that”.* V1 described using his own interpretations to fill in the gaps: *“it is just the odd word here and there. And you know you get the gist of what’s being kind of thought or said”.*

**6.4 Because of isolation and lack of mental stimulation**

Activities which consumed one’s attention were particularly helpful distractors for example V5 explained *“driving and sports has always been, always been the things where I am consumed with that and not with them.”*. She explained that the voices still “*babbled*” but she did not notice what they said, unlike other times. She shared an important reason for shifting her attention: “*with the driving I think it is because I’m so aware that it could be really dangerous if I don’t concentrate”.* Other auditory activities were commonly described as helpful: *“I used to play guitar quite a lot in terms of a distraction, or kind of bit of, bit of a relief from the kind of the noise.”* (V1). However, overreliance on this strategy resulted in V1 damaging his ears. V6, who was also interested in music, noticed with the voices that when he is focusing on his music *“They pretty much completely go”* and V14 agreed “*You tend not to hear stuff when you are doing stuff, constructive”.*  Listening to other people speaking (rather than another auditory input per se) was deemed important by V8 who explained: *“Other people talking that you can listen to instead of the voice in your head, and don’t just sit on your own with the voice”*.

1. **Audit trail from double coding and feedback from LEAP:**

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| **Audit trail of decisions following a second rating of one transcript by a clinical psychologist** | | |
| **Quote** | **Query from double coder** | **Outcome** |
| “it was very unexpected and, you know not a kind of predictable outcome or occurrence” | A reason for engaging: it’s unpredictability? | Explored in future interviews what it was about the voices which initially engaged attention. |
| “I can feel it, it is like a pulse kind of. That does that when [pause] when at their most intense. They, they it thumps my head, um [pause], whereas at the moment I can hear them in the background they are kind of just buzzing away, but there isn’t anything kind of thumping into me” | Is he implying that loudness is a reason for listening? | Whilst not said explicitly here, a code was created for loudness / shouting under ‘strategies the voice uses to get my attention’ and later emerged in other interviews as a reason. |
| “I was trying to show them at times you know the kind of diversity of life and the expanse of the universe in terms of you know it, you know it’s not as nasty as you peeped are making it out to be. There is kind of good elements within it [pause] you know [laughing]. Yeah, just kind of, just trying to wake things up into a kind of different view, rather than you know [pause] killing everything in their way or something.” | Is this to reason with them? | Coded as ‘to negotiate with them’ |
| “It’s like [pause] you know I don’t want to go down that paranoid route again and therefore the kind of engagement in these, in these nasty things is having a negative effect. And so that really did reduce um [pause] you know the believability, the engagement, thinking that they are there for you know, I don’t know why they are there [laughing]. But [pause] you know to kind of watch me live my life or victimise me you know make my life unpleasant, it was just like you know none of it is real.” | Is this a reason to disengage? This feels important but not currently coded | This and the surrounding text was coded under “And I don’t have enough evidence to dispute the voices yet.” |
| “I’m not able to protect myself if something did come my way you know I don’t have the strength or physical ability to defend myself. You know what I mean, and it is kind of compounded the fear factor.” | Would this come under self-beliefs? | Coded under “because I don’t have the confidence to dismiss them”. |
| **Audit trail of coding decisions following discussion of results with lived experience advisory panel** | | |
| Code / higher order category | Query | Outcome |
| Higher order category: ‘Because I trust my senses’ | Upon discussion with the group it was felt that the word trust implies some kind of decision making process, whereas the data seems to support an instinctual decision to rely on what we hear rather than question it. | Code renamed to: ‘Because our instinct is to rely on our senses’ |
| Reason:  Why are they talking about me? Why are they saying these things? | Upon discussion with the group it was felt that the data supported a search for motive, more than searching for why that person had been selected to speak to. They also felt that from their experience voices intentionally select words or phrases, so having ‘select’ would articulate this intention more clearly. | Code renamed to: ‘What is their motive and why have they selected these particular comments.’ |
| Reason:  To make an escape plan | Upon discussion with the group it was felt that one quote was not about escaping per se, but about defending oneself. Hence the group suggested ‘being prepared’ to capture both escape and defence. | Code renamed to: ‘I listen to be prepared for what might happen’. |
| Higher order category:  My instinct is to rely on my senses | The group questioned whether too many reasons had been included in this higher order theme and whether evidence gathering could be separated out. We discussed the relationship between prior knowledge and the perceptual system (the later relies on the former) using illusions as example as well as the initial instinct to rely on the senses, but a theme about data gathering as a means of questioning senses. The group decision was to keep all reasons under one category. | Decided to keep all of the reasons within this one higher order category. |
| Reason:  Because I feel defeated by them | The group were surprised that this was not linked to the voices being constant or repetitive. I agreed that in some cases these reasons did appear to co-occur but in other cases they occurred separately. | Agreed to keep as two separate reasons. |
| The group agreed with all other codes. | | |