Exploring the Voice of OCD

by

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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Abstract

Critical inner dialogues are prevalent and clinically significant features of depression and eating disorders. According to the Interpersonal Circumplex (IPC), qualities of a communication can be rated on orthogonal dimensions of tone (hostile to warm) and authority (dominant to submissive), wherein qualities of a communication elicit complementary responses, with warmth eliciting warmth and dominance eliciting submission. Preliminary research by Chiang and Purdon (2020) found that obsessions are often experienced as a neutral dominant voice, however, this is the only study that has investigated the tonal qualities of obsessions. The current study is a replication and extension of these preliminary findings, exploring the phenomenology of the OCD voice and its association with OCD symptom severity and insecure attachment. Adults with a past diagnosis of OCD (*N*=20) were administered a semi-structured interview developed for this study. The interview included two within-participants conditions; one in which participants were asked about obsessions that evoked a compulsion and another in which the obsession did not evoke a compulsion. Well-validated measures were used to assess appraisals of the OCD voice, OCD symptoms, and attachment style. Qualitative results showed that all participants reported experiencing an internal OCD voice, and the majority (85%) engaged with it in internal dialogue. The OCD voice was predominantly rated as neutral and dominant across both obsessive-compulsive episodes. Quantitative analyses revealed that greater perceived benevolence and omnipotence of the OCD voice significantly predicted more severe OCD symptoms. These findings support the prevalence of a neutral and dominant OCD voice among a sample of adults with a past diagnosis of OCD. Appraisals of the OCD voice, particularly benevolence and omnipotence, may contribute to symptom severity. This study highlights the potential therapeutic value of targeting individuals' relationship with the OCD voice.

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Introduction

Obsessive Compulsive Disorder (OCD) is a chronic and debilitating mental health condition that has been associated with significant impairments in quality of life beyond the effects of other comorbid psychological difficulties (Jahangard et al., 2018). OCD is characterised by the experience of recurrent, unwanted intrusive thoughts, images, impulses, or doubts that evoke distress (obsessions) and elicit repetitive behaviours and mental rituals performed to reduce anxiety (compulsions; APA, 2013). Research has found that sufferers of OCD can spend 4.6 hours a day preoccupied by obsessions and another 5.9 hours engaging in compulsions with considerable impairments to interpersonal and daily functioning (Eisen et al., 2006; Friedman-Ezra et al., 2024; Ruscio et al., 2010; Zerdzinski et al., 2022). Although research has identified common obsessions (e.g., fears of contamination, doubting, and unacceptable thoughts) and compulsions (e.g., excessive hand washing, reassurance seeking, and mentally repeating phrases), OCD is generally considered a heterogenous disorder due to variability in etiology, and the content and experience of obsessions and compulsions (Grisham et al., 2008; Mataix-Cols et al., 2005). Throughout one's lifetime, the OCD presentation varies, with obsessive-compulsive (O-C) content and level of impairment waxing and waning with life stage, stress, and comorbidities (Jakobovski et al., 2012; Vidal-Ribas et al., 2014). Nonetheless, symptoms rarely remit; rather, they tend to worsen over time (Pinto et al., 2006; Sharma & Math, 2019).

The Cognitive-Behavioural Model of OCD

The leading cognitive-behavioural model of OCD emphasizes obsessions as universal, with an estimated 90% of the population having experienced an unwanted and intrusive thought, image, impulse, or doubt (Purdon & Clark, 1993; Rachman & de Silva, 1978). However, a

significant 2.3% of people suffer from highly impairing obsessions that can be extremely interfering and time consuming (Kessler et al., 2005). According to leading models, people with clinical obsessions differ from those with nonclinical obsessions on how they interpret the frequency and meaning of the obsession and their appraisal of the probability and severity of harm represented in the obsessional thought (Rachman, 1998; Salkovskis, 1985). Individuals with OCD misinterpret the frequency with which they experience the obsession as evidence for its importance (e.g., "I keep having this thought so that must mean it's important"), while overestimating the severity and probability of harm (Salkovskis, 1985; Salkovskis & Kirk, 1997; Shafran, 1997). At the same time, people with OCD have an inflated sense of responsibility for harm, often interpreting partial responsibility for a negative event as equivalent to full responsibility, and equating failing to prevent harm with causing harm (Foa et al., 2001; Salkovskis, 1985, 1999). This heightened responsibility evokes distress and elicits the compulsion as a way of reducing anxiety and attempting to prevent the occurrence and responsibility for the negative outcome (Rachman 1995; Salkovskis, 1985).

In addition to misinterpretations of harm and responsibility, people with OCD are intolerant of uncertainty (Tolin et al., 2003). Individuals will often begin compulsions with an imperative for certainty that harm has been avoided (e.g., "get rid of all the germs"; Dean & Purdon, 2021). Proving that one has prevented future harm is rarely objectively verifiable. Consequently, individuals with OCD often rely on an internal sense of 'rightness' to determine that the threat has been neutralized and the compulsion can be stopped (Bucarelli & Purdon, 2015; Salkovskis et al., 2017). While this feeling is meant to act as a termination criterion, compulsions are frequently prolonged (e.g., lengthy, ritualized handwashing) or repeated (e.g., repeatedly reviewing a memory) until the desired 'just right' feeling is achieved (Lopatka &

Rachman, 1995; Rachman, 2002; Salkovskis et al., 2017). Paradoxically, repetition increases uncertainty about whether the compulsion was performed correctly (Van den Hout & Kindt, 2003).

Individuals with OCD tend to have less confidence in their memory, sensory, and cognitive processes compared to those without OCD or with other psychological conditions (Cougle et al. 2007; Nedeljkovic et al., 2009; Rachman, 1973). Mistrust of one's memory, coupled with intolerance of uncertainty, creates a self-perpetuating cycle (Rachman, 2002). Individuals with OCD may repeat or prolong compulsions to achieve a feeling of 'rightness', however, this repetition reduces the vividness of their memory for the compulsion, leading to doubt and further uncertainty about whether the compulsion was performed properly, if at all (Rachman, 2002; Radomsky et al., 2014; Van den Hout, 2019). Additionally, doubts about the compulsion are given more credibility due to existing negative evaluations of one's memory and sensory capacities (Purdon, 2018).

In summary, the cognitive-behavioural model of OCD suggests that negative appraisals of harm and overvalued responsibility drive the need for individuals to feel certain that they have avoided future harm by performing overt or covert rituals. Compulsions are negatively reinforced because they temporarily reduce distress, reinforcing the belief that obsessional thoughts signal harm that the individual is personally responsible for preventing (Bouvard et al., 2020; Boyer and Lienard, 2006; Bucarelli & Purdon, 2015; Dean & Purdon, 2021). When the feared outcome does not occur, this is attributed to performance of the compulsion, rather than the feared outcome being unlikely or unthreatening (Rachman, 1998). Consequently, individuals become caught in a self-perpetuating obsessive-compulsive cycle (Rachman, 2002).

Treatment of OCD

These models have informed cognitive-behavioural therapy (CBT), which has been the gold-standard treatment of OCD for the last several decades (Abramowitz et al., 2003; Öst et al., 2015; Storch et al., 2009). The aim of CBT is to facilitate new learning about the appraisal and interpretation of obsessions through cognitive restructuring and exposure with response prevention (ERP). Exposure involves developing a hierarchy of feared objects or situations, from least distressing to most, and then enduring the feared stimuli until the highest level of distress can be tolerated. Exposures are performed with response prevention, which involves refraining from engaging in the compulsion or postponing the compulsion that would otherwise reduce anxiety. Through this treatment approach, individuals are meant to learn that the distress, anxiety, and uncertainty associated with the obsession are tolerable, and the compulsion is not necessary to manage the discomfort.

ERP treatment for OCD has garnered extensive empirical support, with response rates of approximately 80% (Foa et al., 2010). However, when treatment refusal and drop out are considered, only about 50% of people benefit from treatment (Abramowitz, 2006; Öst et al., 2022) and even responders only experience a 45% improvement in obsessions and compulsions (McKay et al., 2015). Although substantial research has focused on identifying and modifying negative appraisals of obsessions, deficits in symptom improvement following CBT for OCD remain. This suggests that current psychological models of OCD may be overlooking factors contributing to the persistence and maintenance of obsessions and compulsions.

The OCD Voice

There are frequent references to the construct of an inner 'voice' in OCD both in the literature and in clinical practice (Chiang & Purdon, 2020; Gangdev, 2002; O'Neill, 1999; Shoenfelt & Weston, 2007). Unlike auditory hallucinations, this voice is experienced internally,

rather than externally, yet can still be identified as alien from one's sense of self (Chiang & Purdon, 2021; Firestone, 1986; Noordenbos et al., 2014; O'Neill, 1999). Treatment of pediatric OCD often involves externalizing techniques, such as identifying the OCD as a separate entity and learning to talk back to its demands (Banting & Lloyd, 2017; Dembo, 2014). Similar voice phenomena have been identified in other non-psychotic disorders, such as anorexia nervosa and depression (Firestone, 1986; Pugh & Waller, 2017; Pugh 2016).

In analysing one women's account of OCD, O'Neill (1999) identified a 'controlling voice' in her narrative of her obsessions and compulsions. This OCD voice issued imperative demands, exerted a position of power over her other thoughts, and seemed to have knowledge about the consequences of non-compliance. Separate from her 'true' self, the women referred to the OCD voice as a distinct entity that threatened, argued with, or conversed with her rational self, urging her to engage in safety behaviours. This account aligns with the Dialogical Self Theory, which asserts that the self comprises a multiplicity of inner voices that reflect separate points of view and engage in intrapersonal communication (Hermans, 1996; Hermans & Gieser, 2012). According to this view, the exchange of ideas between two points of view or 'I-positions' creates an internal dialogue where voices pose and answer questions and have agreements and disagreements with each other (Hermans, 1996; Hermans & Gieser, 2012). Although the polyphonic self is experienced internally, the individual may identify more strongly with the content and tone of certain viewpoints, allowing them to distinguish their 'true' self from other uncharacteristic beliefs they 'hear' (Firestone, 1986; Noordenbos et al., 2014).

A commanding inner voice has been documented in eating disorders (ED) as a prevalent and clinically significant aspect of pathology (Noordenbos et al., 2014; Pugh, 2016; Pugh & Waller, 2017). About 90% of eating disorder sufferers have described experiencing a critical

inner voice distinct from other cognitions (Noordenbos et al., 2014). This voice is ‘heard’ in either second or third person and comments on the individual’s weight, shape, eating, and their consequences for self-worth (Noordenbos et al., 2014; Pugh, 2016; Pugh & Waller, 2017). First emerging as a benign guiding presence, the voice evolves over the course of illness into a hostile and abusive force that attacks self-esteem and encourages disorder-maintaining behaviours (Pugh, 2016; Tierney & Fox, 2010). Notably, higher self-criticism and lower self-esteem were reported by more frequent voice ‘hearers’, suggesting that the voice may contribute to the perpetuation of disordered eating and related cognitions (Noordenbos et al., 2014).

Recent research focusing on appraisals of the anorexic voice have begun to explore voice characteristics associated with eating disorder symptomology. Specifically, voice benevolence was associated with more pathological eating attitudes whereas perceived voice omnipotence was linked to longer illness duration (Pugh & Waller, 2017). The desire to fight back and the perceived inability to fight back were both related to lower body mass index (Pugh & Waller, 2017). Anorexic voices perceived as more powerful and evoking feelings of defeat and entrapment were reported by those with more severe disordered eating attitudes, compensatory behaviours, and longer illness duration (Pugh & Waller, 2017). The anorexic voice has also been implicated in treatment progress of eating disorders. In fact, Fox and colleagues (2012) posited that individuals may be ‘enticed back’ to their eating disorder by the voice and learning to fight back against the anorexic voice has been suggested as a critical step in recovery (Duncan, Seber & Lee, 2014; Pugh, 2016).

Given similarities with anorexia nervosa, such as intrusive thoughts that elicit anxiety and evoke distress-reducing behaviours, it is conceivable that individuals with OCD experience an

internal voice that impacts obsessions and compulsions. However, little research has attempted to understand the tonal properties of the OCD voice and their influence on symptomology.

The DSM-5-TR and other commonly used diagnostic tools for OCD (e.g., the Mini-International Neuropsychiatric Interview) assess verbal-based obsessions using the broad term 'verbal thoughts'. Recent research on the OCD voice found that individuals with OCD distinguished verbal thoughts from the 'voice', suggesting that these may be separate phenomena in the OCD presentation (Chiang & Purdon, 2020). Importantly, voices carry communicative properties in addition to content, such as tone (warmth/hostility) and authority (submissive/dominant). Studies on motivational prosody have found robust relations between a speaker's tone of voice and a listener's affect and motivation to obey the voice. For example, compared to an autonomy-supportive tone of voice (encouraging and supportive), a controlling tone has shown to elicit more negative affect and decreased closeness and cooperation among listeners (Paulman & Weinstein, 2023; Weinstein et al., 2020; Vrijders et al., 2024). That is, the tone of the speaker rather than the content of the message affected listeners' behaviour and perceptions of the speaker. Empirical evidence from Lukowitsky and Pincus (2011) suggest that the intrapsychic world can be described using interpersonal qualities, such as tone and authority. In the context of the OCD voice, the warmth and dominance of the voice, in addition to the content, may influence whether the voice is 'obeyed' by way of a compulsion. Taken together, these findings suggest that psychodiagnostics for OCD may be overlooking an important aspect of the phenomenology of OCD: the tonal properties with which obsessions, compulsions, and appraisals are experienced.

The interpersonal circumplex (IPC) is a well-validated model used to characterise voice properties and their influence on behaviours (Pincus, Hopwood & Wright, 2017). According to

this model, the qualities of a communication can be rated on the orthogonal dimensions of tone (hostility to warmth) and authority (dominant to submissive). The tonal qualities of a communication elicit complementary responses, with warmth eliciting warmth and dominance eliciting submission. In line with the IPC, Hermans (2003) supposed that dialogical relations are characterised by power differences, such that one I-position asserts dominance over the other. Thus, an OCD voice that is dominant is expected to pull for a submissive response.

Most recently, Chiang and Purdon (2020) examined the tonal properties of obsessional doubt in individuals with clinical and subclinical obsessions and compulsions. Consistent with the ED literature, both groups frequently experienced an inner obsessional voice distinct from other verbal-based thoughts. Amongst individuals with clinical OCD, the voice was most commonly rated as neutral dominant, which is a highly authoritative voice that is likely to elicit submission. In contrast, the majority of individuals with subclinical OCD described the obsessional voice as hostile dominant. Notably, the difference in tone of voice (neutral vs hostile) may determine whether the individual feels able to combat the voice. For example, it may be difficult to dispute a voice that sounds authoritative and knowledgeable, whereas a hostile voice may activate defiance and/or be dismissed as unfair and thus resisted more easily (Chiang & Purdon, 2020). These findings suggest that the OCD voice is a prevalent and impactful aspect of OCD, thus highlighting the value of clarifying its phenomenology and influence on obsessions and compulsions.

Given that obsessional doubt was often described by participants as a voice with distinct tonal qualities (Chiang and Purdon, 2020), the OCD voice may reflect internalised interpersonal dynamics rooted in early attachment experiences. Indeed, both the Dialogical Self Theory and the IPC propose that such intrapsychic voices can be shaped by formative relational dynamics

(Hermans, 1996; Lukowitsky & Pincus, 2011). This raises important questions about how adult attachment orientation may relate to the tonal qualities and appraisals of the OCD voice, as well as one's susceptibility to submit to or resist the voice.

Attachment Style and OCD

Insecure attachment is considered a vulnerability factor for developing negative appraisals central to OCD (Doron & Kyrios, 2005). Self-concept, particularly the degree to which one perceives themselves as competent in important self domains, is based on early interactions with one's attachment figure (Mikulincer et al., 2003). Indeed, research on attachment suggests that if a caregiver is critical and anxious, the child may fail to develop confidence in their own judgement, making them prone to doubt in domains that are important to them or those to whom they are closely attached (Blatt et al., 1997; Bowlby 1969/1982; Doron et al., 2007). Consequently, intrusive thoughts relating to failure in sensitive domains may endanger the individual's self-worth, triggering intense anxiety and resulting in maladaptive appraisals of and responses to intrusions (Doron & Kyrios, 2005).

Individual differences in attachment style are measured along the orthogonal dimensions of attachment anxiety and attachment avoidance (Brennan, Clark, & Shaver, 1998). Anxious attachment is characterised by a fear of abandonment and unavailability of others, while avoidant attachment is related to a fear of closeness rooted in the desire for control and autonomy (van Leeuwen et al., 2020). Research has linked both anxious and avoidant attachment styles with the dysfunctional beliefs central to the cognitive-behavioural model of OCD (Doron et al., 2009). Specifically, individuals with insecure attachment (both anxious and avoidant) exhibit unrealistic expectations of themselves, overestimation and hypervigilance to threat, and difficulties supressing thoughts (Bhar & Kyrios, 1999; Doron et al., 2005). Consistent with this idea,

research examining associations between insecure attachment and OCD symptoms have found that negative beliefs such as intolerance of uncertainty and fear of compassion mediate the relationship between anxious attachment and obsessions and compulsions (Marsh et al., 2024; McNeil and Purdon, 2024). This suggests that attachment orientation may indirectly influence OCD symptoms through negative beliefs instilled by the attachment figure during childhood. Indeed, Pozza et al. (2021) found that fear of disapproval was a strong predictor of obsessions and compulsions over and above key factors known to affect their severity. Similarly, in a study of compulsions in people with OCD, Dean and Purdon (2021) found that one of the most important goals of the compulsion was to avoid being held responsible for harm by others; in fact, this goal was significantly more important than the goal of avoiding harm. Taken together, these findings suggest that adults high in insecure attachment, who are easily worried about intimate relationships, dedicate excessive efforts to the aim of pleasing others (Doron et al., 2009).

Theoretical considerations about the phenomenology of the self offers insight into how beliefs about inflated responsibility and disapproval from others may become integrated into one's self-concept. Hermans (1996) proposed that the mind's relationship with itself is shaped by early relationships with others, creating a 'society of mind' that includes mental representations of close others. Individuals may behave as though these internalized others are still present and in control, treating themselves in ways consistent with how they were treated by close others during childhood (Critchfield & Benjamin, 2008). Similarly, critical voices are understood as internalized representations of attachment figures (Lukowitsky & Pincus, 2011). If child-caregiver interactions are enacted on a self-to-self level in the context of OCD, then the nature and tone of obsessions may cause people to question their own judgement (e.g., "I must have

done something wrong! – in which case I am in trouble!"), evoking submission, and resulting in performance of compulsions. Thus, the tone and authority with which the OCD voice is experienced may indeed be personally relevant, making the voice more difficult to dismiss. However, no study has explored the associations between tonal properties of the OCD voice and adult attachment orientation.

The Current Study

Chiang and Purdon's (2020) preliminary study on the voice in OCD suggests that people with OCD experience obsessional doubt as a highly authoritative voice that is likely to evoke submission. As such, there is an interpersonal aspect to the OCD presentation to which the IPC can be applied. Specifically, the IPC offers a theoretically grounded framework for characterising how individuals with OCD appraise the tone and authority of the OCD voice, with these qualities in turn influencing the responding communication. Thus, the IPC can be used to inform the phenomenology of the OCD voice, which has received little empirical attention to date. The current study primarily aimed to replicate and extend findings from Chiang and Purdon (2020) by identifying the qualities of the OCD voice across recent obsessive-compulsive (O-C) episodes in which a compulsion was performed and not performed. The research questions are as follows:

1. Do individuals with OCD describe experiencing an OCD voice across O-C episodes?
2. When individuals experience the OCD voice, how do they engage with it?
3. When do individuals stop experiencing the OCD voice within O-C episodes?
4. How do tonal qualities of the OCD voice differ when the obsession evokes a compulsion and when it does not?

5. How does engagement with the OCD voice differ when the obsession evokes a compulsion and when it does not?

Research on the anorexic voice in eating disorders and auditory hallucinations have found that individuals' appraisals of the voice influence pathology. Currently, no research has examined the impact of the OCD voice on obsessions and compulsions. The second aim of this study was to investigate whether appraisals of the OCD voice (benevolence, malevolence, omnipotence, power) contribute to OCD symptom severity. The research question is as follows:

6. Do negative appraisals of the OCD voice predict the severity of OCD symptoms?

Given that the OCD voice may be an internalised representation of an attachment figure, we can reasonably expect that certain facets of anxious (*Need for Approval* and *Preoccupation with Relationships*) and avoidant (*Discomfort with Closeness* and *Relationships as Secondary to Achievement*) attachment styles may be related to particular appraisals of and responses to the OCD voice. The final aim of this study was to examine the relationship between facets of insecure attachment and appraisals of and responses to the OCD voice. The final research question is as follows:

7. Are specific facets of insecure attachment associated with appraisals of and responses to the OCD voice?

Method

Participants

Twenty-one participants with a past DSM-5 diagnosis of OCD were recruited from the Anxiety Treatment and Research Clinic (ATRC) at St. Joseph's Healthcare Hamilton. One participant was excluded from the study due to limited English fluency. The final sample comprised 20 participants with a mean age of 37.10 (*SD* = 12.27), most of whom identified as white (80%; 5% indigenous; 15% ethnicity not reported) and female (85%; 10% male; 5% non-binary). The majority of participants (85%) had a principal diagnosis of OCD. Of the remaining participants, one had a principal diagnosis of obsessive-compulsive personality disorder (OCPD), and in two cases, OCD was a secondary or tertiary diagnosis but clinically significant. Comorbidities included generalised anxiety disorder (25%), major depressive disorder (20%), posttraumatic stress disorder (10%), OCPD (5%), social anxiety disorder (5%), agoraphobia (5%), and persistent depressive disorder (5%). All participants had undergone group and/or individual CBT with ERP for OCD within the last eight years and had agreed to be contacted for participation in research.

The present study was conducted in tandem with an unrelated study, which used the same sample of participants and explored their experiences of ERP for OCD. Recruitment criteria included individuals who did not report a significant reduction in symptoms following treatment, defined as a reduction of less than 30% from pre- to post-treatment scores on the Yale-Brown Obsessive Compulsive Scale (Y-BOCS; Goodman et al., 1989). The Y-BOCS was routinely administered before and after treatment at the ATRC. The specified cut off is based on research by Tolin et al. (2005), who suggests that a reduction criterion of 30% or greater indicates clinical improvement.

Measures

The Voice of OCD Interview

The Voice of OCD Interview (VOCDI) was developed for this study to gain a better understanding of participants' experience of the OCD voice across O-C episodes. This semi-structured interview was based on Chiang and Purdon's (2020) Phenomenological Interview of the Obsessive-Compulsive Experience and includes both closed-ended and open-ended questions. In the current study, the VOCDI inquired about O-C episodes that evoked a compulsion and episodes that did not evoke a compulsion, allowing us to examine differences in OCD voice properties when people submitted to compulsions versus resisted compulsions.

The two interview conditions were counterbalanced across participants. Each condition was broken down into six sections. The first section is a description of the OCD voice, including how the OCD voice was defined (e.g., an internal voice that people hear in their mind), what the OCD voice may sound like (e.g., "I'd better make sure the stove is off", "Are you sure you turned the stove off?"), and how the OCD voice may be experienced (e.g., a repeated command, statement, question and/or an internal dialogue). The second section asks participants to recall an obsession in the past week that either evoked a compulsion (compulsion condition) or did not evoke a compulsion (no compulsion condition). Information about the content of the obsession (e.g., "What was the obsession about?") and how the obsession was experienced (e.g., "How did you experience the obsession?") were collected. The third section is based on the IPC and asks participants to rate the tonal properties of the OCD voice, including how warm and dominant the voice was at the beginning of their O-C episode (e.g., "When you experienced the obsession, how would you rate the tone of the OCD voice on this scale from zero, cold and hostile to, one hundred, warm and agreeable?"). The fourth section asks about participants' engagement with

the OCD voice, such as how much they believed the OCD voice to be representing the truth, and the extent and success with which they reasoned and dismissed the voice (e.g., "How hard did you try to dismiss the OCD voice, from not at all to I tried my hardest?"). The fifth section focuses on subsidence of the OCD voice. That is, when participants stopped 'hearing' the voice (e.g., "When did the OCD voice stop?"). The sixth section asks about the compulsion that was either performed or resisted from being performed (e.g., "What was the compulsion that you did in response to the OCD voice" or "Do you have a sense as to why you did not do a compulsion in response to the OCD voice?"). The interview concludes by asking participants about their familiarity with the OCD voice (e.g., "Have you thought about your obsessions as a voice before?") and whether they feel that the concept aligns with their experience of OCD (e.g., "Do you feel like the OCD voice accurately describes your experience with obsessions?"). The Voice of OCD Interview is presented in Appendix A.

Dimensional Obsessive-Compulsive Scale

The Dimensional Obsessive-Compulsive Scale (DOCS; Abramowitz et al., 2010) is a 20 item self-report questionnaire used to assess the severity of obsessions and compulsions along four empirically supported O-C dimensions: contamination, responsibility for causing harm, symmetry and ordering, and unacceptable thoughts. For the purposes of the current study, participants were asked about symptoms in the past week, rather than the past month. Higher scores indicate greater severity of O-C symptoms. The DOCS has shown to have good psychometric properties in patients with OCD (range of Cronbach's alpha = 0.90–0.96; Abramowitz et al., 2010; Rapp et al., 2016). The DOCS is presented in Appendix B.

Beliefs About Voices Questionnaire–Revised

The Beliefs About Voices Questionnaire-Revised (BAVQ-R; Chadwick, Lees, & Birchwood, 2000) is a 35 item self-report questionnaire used to measure beliefs about voices (benevolence, malevolence, omnipotence) and responses to them (engagement and resistance). Benevolence and malevolence refer to beliefs that the voice is helpful and harmful, respectively, while omnipotence refers to beliefs that the voice is wholly powerful. Engagement includes willingness to obey the voice, while resistance includes attempts to disengage from the voice. The BAVQ-R was adapted for the current study by changing the term 'my voice' to 'the OCD voice', including 'Disagree Strongly' to the Likert scale, as well as additional item-level modifications to align with the OCD presentation. Higher scores indicate greater levels of that voice characteristic or response. The BAVQ-R has demonstrated good internal consistency in patients with auditory hallucinations (range of Cronbach's alpha = 0.74–0.88; Chadwick et al., 2000) and anorexia nervosa (range of Cronbach's alpha = 0.92–0.97; Noordenbos et al., 2014). The BAVQ-R used in this study is presented in Appendix C.

Voice Power Differential Scale

The Voice Power Differential Scale (VPDS; Birchwood et al., 2000) is a seven item self-report questionnaire used to assess perceived power of a voice relative to the self. The VPDS was adopted for the current study by changing the term 'my voice' to 'the OCD voice'. Higher scores indicate higher power of the voice relative to the self. The VPDS has acceptable internal consistency in patients with auditory hallucinations (Cronbach's alpha = 0.85; Birchwood et al., 2000). The VPDS used is presented in Appendix D.

Attachment Style Questionnaire

The Attachment Style Questionnaire (ASQ; Feeney et al., 1994) assesses attachment style among adults using 40 items grouped into five facets of attachment (*Confidence*, *Need for*

Approval, *Preoccupation with Relationships*, *Discomfort with Closeness*, and *Relationships as Secondary*). The present study examined four of the five facets: *Need for Approval*, *Preoccupation with Relationships* (corresponding to attachment anxiety), *Discomfort with Closeness*, and *Relationships as Secondary* (corresponding to attachment avoidance). Higher scores indicate a greater amount of that facet of attachment. The ASQ has shown to have good internal consistency in patients with OCD (range of Cronbach's alpha = 0.79–0.85; Pozza et al., 2021). The ASQ is presented in Appendix E.

Procedure

Interviews were conducted with each participant individually over Microsoft Teams. Informed consent to participate in the study, audio record the interview, and use illustrative quotes in research were obtained. The Voice of OCD Interview took 35 minutes on average and was administered after another interview unrelated to the current study. During the VOCDI, the interviewer shared her screen so participants could view the accompanying images for the description of the OCD voice, and the visual analog scales to rate the tonal qualities of the OCD voice and engagement with the OCD voice. One participant primarily experienced their obsessions as a felt sense. In this case, the participant was asked about the implied message of that feeling, and to rate the tonal qualities of and engagement with the implied message. Participants were emailed an individual link to complete the four questionnaires (DOCS, BAVQ-R, VPDS, and ASQ). All participants were remunerated with a $50 Amazon eGift Card. Prior to completing data collection, this study was pre-registered on Open Science Framework (December 17, 2025). The pre-registration can be viewed at: https://osf.io/ugkyf/?view_only=2bd60ae9304b4717b9b6c93c9cfda6ba.

Data Analysis

Qualitative Analysis

The author used a qualitative approach informed by Braun and Clarke's (2006) thematic analysis framework to explore open-ended interview responses. First, the author familiarised herself with the data by transcribing the audio-recorded interviews and reading the transcripts, noting initial ideas for potential themes and codes. The data were then analysed using NVivo 15. A realist approach to coding was applied, based on the assumption that participants' language directly reflected their internal and external experiences. Accordingly, the analysis was conducted at the semantic level, with codes and themes developed from the explicit content of participants' accounts, rather than from inferred meanings. Coding was primarily deductive, guided by the research questions and existing literature on OCD. When existing codes did not capture the data adequately, inductive codes were created to reflect novel aspects of participants' experiences. A provisional codebook was developed based on six randomly selected transcripts. This codebook was then reviewed collaboratively, wherein the research supervisor and a senior colleague each independently coded three randomly selected transcripts. Following this, the research team met to discuss and refine the coding framework. This process included merging, adding, or removing codes and clarifying definitions as needed. One participant's interview response for the non-compulsion episode was not codable due to an inconsistent OCD presentation, thus only the compulsion episode responses were coded. The finalised coding criteria were then applied by the author to the remaining 14 transcripts. As additional relevant concepts emerged, new codes and themes were incorporated into the final framework, which was subsequently reviewed by the research supervisor. To assess interrater reliability, a trained research assistant independently coded the 20 interviews. The final version of the codebook is included in Appendix F.

Quantitative Analysis

Closed-ended interview questions and questionnaire data were quantitatively analysed. To address the fourth and fifth research questions, three paired samples t-tests were used with episode type as the within-groups factor, and tone, authority, and engagement as the dependent variable, respectively. One simultaneous multiple regression analysis was used to address the sixth research question. Four appraisals (benevolence, malevolence, omnipotence, power) were entered as the predictor variables and symptom severity (DOCS total score) was entered as the outcome variable. Associations between facets of insecure attachment (*Need for Approval*, *Preoccupation with Relationships*, *Discomfort with Closeness*, and *Relationships as Secondary*) and appraisals of (benevolence, malevolence, omnipotence, and power) and responses to the OCD voice (engagement and resistance) were explored using a Pearson correlation matrix.

Results

Qualitative Analysis: Insights into the OCD Voice

The objective of the interview was to better understand participants' experiences of the OCD voice across O-C episodes. A sample of the codes was deductively derived from the research questions and broader OCD literature (Deductive versus inductive codes are specified in Appendix F). The data were coded at the semantic level, such that codes reflect what was explicitly stated by participants. The coding framework integrates both deductive codes, informed by existing OCD literature and research aims, and inductive codes, developed to uniquely capture participants' perspectives. Percentages and frequency counts are reported for each code. Participants could be represented in multiple codes within a theme, with no limit to how many codes a single participant could be counted under (e.g., one participant could be included in all codes within a theme).

Obsessional Experience

Consistent with our hypothesis, 100% of participants reported experiencing an OCD voice as part of their obsessions. For some participants, the OCD voice was the most prominent obsessional experience:

> "The feelings come but I always have this stupid voice telling me 'You're dirty', 'Wash again', just constantly feeding the compulsions. It doesn't stop."

While for other participants, the OCD voice was not the most prominent obsessional experience:

> "…with the [dirty] feeling, I have to get rid of the feeling which is even more important than the voice."

In addition, 85% of participants reported engaging in an internal dialogue, which was also referred to as an argument, battle, debate, fight, or conversation between the OCD voice and the responding voice. One participant described the internal dialogue as:

> "It's generally a conversation in my head. Like an arguing, a self-doubt back and forth."

An internal dialogue could also occur before resisting performing a compulsion. One participant described how they were able to move on from engaging with the OCD voice:

> "Well, I had that internal debate for a bit and then eventually I was able to redirect my attention to a different task like chores or whatever."

The OCD voice could be experienced in combination with other obsessional forms. For example, one participant experienced both the OCD voice and mental imagery within an O-C episode:

> "[The internal dialogue was] 'Oh, did I lock the car?', 'Yes you did. You checked the orange light.', 'Okay', 'But you could check one more time because what if…', and then I had that image of the car rolling and crushing someone as soon as I walk in."

Another participant described experiencing both the OCD voice and physical sensations:

> "The OCD is more of a voice, but it comes with the physical aspect of anxiety and just physical feelings I have."

Overall, the findings were consistent with the hypothesis, such that 100% of participants experienced the OCD voice, and 85% of participants engaged with the OCD voice in an internal dialogue. Percentages and frequency counts of participants' obsessional experience are presented in Table 1. Frequency counts and codes of participants' obsessional experience are presented in Appendix G.

Table 1.

Percentages and Frequency Counts of Participants' Obsessional Experience

	Participants (N = 20)
Felt sense	40% N = 8
Imagined sounds	10% N = 2
Internal dialogue	85% N = 17
Internal voice	100% N = 20
Mental imagery	35% N = 7
Physical sensations	15% N = 3

OCD Voice

The OCD voice conveyed a range of messages, with the three most common being demand for action (75%), consequence of non-action (65%), and doubt (65%). Participants shared verbatim what the OCD voice expressed during O-C episodes. One participant described experiencing the OCD voice as a list of demands during a compulsive hand wash:

> "'Make sure you wash them properly.', 'Make sure you get under your nails.', 'Make sure you use enough soap.', 'Make sure you count to twenty.'"

Another participant shared the consequence spoken by the OCD voice:

"'You can't touch your food with your hands, only with utensils or you might contract something and pass it on.'"

For some participants, the OCD voice verbalised doubts about whether a feared event would occur or whether they completed a compulsion properly. For example, one participant who had preoccupations related to striking a pedestrian with their car, experienced the OCD voice as:

> "'Oh, did you hit someone? You gotta make sure that you didn't. Let's go through the [compulsion].'"

Another participant who had preoccupations related to contamination, described experiencing the OCD voice as:

> "'Oh, are you sure you should touch that bread? Because you could somehow put germs on it and then eat it.'"

Within a single O-C dialogue, the OCD voice could speak several different expressions. For example, one participant experienced the OCD voice verbalising both fear as reality and demand for action, respectively:

> "So, yeah, there was the 'You're dirty now.', 'You gotta go clean.'. Then there was me fighting it being like 'No, I just had a shower this morning. I don't need to do it again.', and, yeah, [the second] voice lost."

Across both O-C episodes, participants reported experiencing an average of four different OCD voice expressions, with one participant experiencing as many as eight. That is, rather than a single repeated command or statement, the OCD voice shifted its expressions during internal dialogues. For example, one participant described the OCD voice as initially demanding and warning of a potential consequence, before shifting to invoking self-doubt:

"'Did you check the kettle? Go back and do it! Check it! You better make sure you check or you're going to light your house on fire.'… 'Yeah, I already checked' but then it's almost like I'm gaslighting myself, like, 'You don't remember.', I checked and then like 'Yeah, but was it plugged in?', and then I'll be like 'You're right, maybe I don't remember.'"

Thus, the OCD voice expressed a variety of obsessional content during both the obsession and compulsion elements of an O-C episode. This finding is in line with the hypothesis that most participants would experience an OCD voice. Percentages and frequency counts of participants' OCD voice expressions are presented in Table 3 and the number of OCD voice forms endorsed by participants across the two O-C episodes are presented in Table 4.

Table 3.

Percentages and Frequency Counts of Participants' OCD Voice Expressions

	Participants ($N = 20$)
Accusation	35% $N = 7$
Consequence of non-action	65% $N = 13$
Demand for action	75% $N = 15$
Doubt	65% $N = 13$

Ensuring certainty	45% $N = 9$
Fear as reality	60% $N = 12$
Remembering past evidence	25% $N = 5$
Repugnant thought	35% $N = 7$
Situationally driven fear as reality versus consequence of non-action	5% $N = 1$
Suggesting action	25% $N = 5$

Table 4.

Number of OCD Voice Expressions Endorsed by Participants Across Two O-C Episodes

	Participants ($N = 20$)
One OCD voice expression	5% $N = 1$
Two expressions	5% $N = 1$
Three expressions	15% $N = 3$

Four expressions	35% *N* = 7
Five expressions	20% *N* = 5
Six expressions	5% *N* = 1
Seven expressions	5% *N* = 1
Eight expressions	5% *N* = 1
Average number of expressions	4.3 (*SD* = 1.6)

OCD Voice Characteristics

The IPC was used to assess OCD voice characteristics. Participants rated the tone and authority of the voice along continuums from cold and hostile (0) to warm and agreeable (100), and from dominant and domineering (0) to submissive and non-assertive (100), respectively. They also described qualities not captured by the IPC, such as demanding (35%), all-knowing (20%), persuasive (10%), and taunting (5%). The OCD voice was predominantly neutral in tone (M = 34, SD = 23) and dominant in authority (M = 28, SD = 18) across both O-C episodes. For example, one participant described the tone of the OCD voice as:

> "Cold and hostile all the way, that one's like…there's no room for empathy and like…yeah that one's really intense."

Another participant described the authority of the OCD voice as:

"It's domineering. It's definitely domineering like 'You gotta do this.'"

Some participants (15%) reported that the tone of the voice shifted based on the obsessional content. For example, one participant described this contextual difference as:

"If I did something wrong it's more cold. If it's just 'You should double check something that doesn't have an impact to somebody' then it's warm."

Although frequency counts from the qualitative data were evenly split between neutral (45%) and hostile (45%) tone, participants' quantitative ratings of the OCD voice (M = 34 on a 0-100 scale) suggested a tone more consistent with neutral than hostile.

Taken together, the OCD voice was primarily neutral and dominant both when the obsession led to a compulsion and when it did not. Tone and authority may vary within participants' experiences depending on the obsessional content. Percentages and frequency counts of participants' OCD voice characteristics are presented in Table 5.

Table 5.

Percentages and Frequency Counts of Participants' OCD Voice Characteristics

	Participants (N = 20)
All-knowing	20% N = 4
Anxious	25% N = 5
Cold	45% N = 9

Demanding	35% *N* = 7
Dominant	60% *N* = 12
Hostile	45% *N* = 9
Neutral	45% *N* = 9
Persuasive	10% *N* = 2
Situationally driven warm versus cold	15% *N* = 3
Taunting	5% *N* = 1

OCD Voice Pronouns

Although there were no *a priori* hypotheses related to OCD voice pronouns, this developed as a relevant theme identified from participant responses. The OCD voice used second person (75%) and first person (30%) pronouns. Examples from three separate participants demonstrate the OCD voice speaking in second person:

(1) "'What if you're violent when you go out by yourself.'"

(2) "'You did something wrong.'"

(3) "'You missed some leaves over there, you should go get them.'"

Additionally, examples from three separate participants demonstrate the OCD voice speaking in

first person:

(1) "'If I leave is she going to be injured all day because I didn't double check?'"

(2) "'What if I touch my face? What if I touch my mouth?'"

(3) "'Oh, I'm going to get someone sick.'"

Participants often switched between pronouns when re-enacting internal O-C dialogues. Most participants (75%) spoke in second person (i.e., 'you') when sharing what the OCD voice expressed, and first person (i.e., 'I') when sharing their response back to the OCD voice. For example, one participant shared what was spoken by the OCD voice and how they responded:

> "So, it was kind of playing back and forth in my head of 'You need to go back to check the doors', 'But, it's a few blocks away so it will cut into my time with [my son] because I can't stay there all day because I need to pick up my other two from school at a certain time.'"

Overall, most participants described the OCD voice as speaking in second person, while they responded back in first person. Percentages and frequency counts of participants' OCD voice pronouns are presented in Table 6.

Table 6.

Percentages and Frequency Counts of Participants' OCD Voice Pronouns

	Participants ($N = 20$)
First person	30% $N = 7$
Second person	75% $N = 12$

OCD voice speaks "you"; self speaks "I"	55% *N* = 11

Responses to the OCD Voice

Consistent with our hypothesis, the OCD voice elicited responses from participants. The responses spanned multiple domains, including interpersonal, behavioural, and emotional. Participants used on average four to five different response types across the two O-C episodes. The most common response types included performing the compulsion (80%), challenging the OCD voice (70%), and self-reassurance (55%) and evidence against the obsession (55%). One participant with a history of pedophilia OCD described feeling compelled to combat the OCD voice through self-reassurance:

> '[The compulsion in response to the OCD voice was] combatting it, talking to it for sure, but also telling myself 'No. That's not you. That's not at all anything you're interested in.' and looking away. So, some avoidance."

Other participants initially resisted the OCD voice before submitting to its demands. For example, one participant first responded with evidence against the OCD voice before engaging in a cleaning ritual:

> "So, yeah, there was the 'You're dirty now.' 'You gotta go clean.'. Then there was me fighting it being like "No. I just had a shower this morning. I don't need to do it again.", and, yeah, that voice lost."

Some response types were directed at the self, while others were directed at the OCD voice. For example, self-reassurance, self-doubt, and self-compassion were all directed at the self after the OCD voice had verbalised an obsession. One participant reassured themself after the OCD voice had spoken:

"'You know nothing bad is going to happen. You're literally fine. Nothing bad is going to happen, calm down.'"

Responses made directly to the OCD voice could be argumentative or submissive in nature. For example, one participant strongly opposed the OCD voice:

"So, the OCD voice will bring up something and I'm just like "Man, shut up. You have no idea what you're talking about.", and that tends to be how some of the conversations go."

Another participant responded back to the OCD voice with evidence against the obsession:

"Even if I didn't lock it, it does have automatic locks on it, I'm pretty sure. So, eventually it should still lock. Although I'm not one hundred percent certain on that, but I'm pretty sure it would."

In addition to behavioural and interpersonal responses, the OCD voice elicited negative emotions, such as guilt, sadness, frustration, and anxiety. One participant described how they felt in response to the OCD voice:

"I think there is like a, there is a frustration, there is a sadness there where it's like 'I know this is hard. I know this is OCD. This is the hardest one, the habit to kick', so there's a sadness that's always there, an awareness of feeling stuck, of feeling captive or a prisoner to this particular obsession and compulsion. It kind of feels like the big one where I'm like 'Oh, this is the big one.'"

A quarter of participants explained that their success with challenging the OCD voice depended on the obsessional content. For example, one participant described their differential success dismissing preoccupations related to germs versus the use of profanity in work emails:

"On the hierarchy, I have a lot harder time dismissing the obsessive thought [about germs and contamination] but in this case, I was just "Whatever, worst case I drop an F bomb on somebody and big deal".

Consistent with the hypothesis, participants engaged with the OCD voice by responding back in an internal dialogue. Responses to the OCD voice were diverse, and spanned interpersonal, behavioural, and emotional domains. Percentages and frequency counts of participants' responses to the OCD voice are presented in Table 7 and the number of response types endorsed by participants across the two O-C episodes
are presented in Table 8.

Table 7.

Percentages and Frequency Counts of Participants' Responses to the OCD Voice

	Participants ($N = 20$)
Abstinence violation	5% $N = 1$
Agreeing with the OCD voice	25% $N = 5$
Asking for information or permission	5% $N = 1$
Challenging the OCD voice	70% $N = 14$
Criticism related to compulsion	15% $N = 3$

Evidence against obsession	55% $N = 11$
Implications of compliance with OCD voice	25% $N = 5$
Negative emotions	35% $N = 7$
Opposition	50% $N = 10$
Performing the compulsion	80% $N = 16$
Reference to ritual	25% $N = 5$
Self-compassion	10% $N = 2$
Self-doubt	25% $N = 5$
Self-reassurance	55% $N = 11$
Setting Limits	15% $N = 3$
Situationally driven ability to challenge compulsion	25% $N = 5$

Table 8.

Number of Response Types Endorsed by Participants Across Two O-C Episodes

	Participants (N = 20)
One response type	5% N = 1
Two response types	5% N = 1
Three response types	5% N = 1
Four response types	25% N = 5
Five response types	20% N = 4
Seven response types	20% N = 4
Eight response types	10% N = 2
Nine response types	5% N = 1
Average number of response types	5.2 (SD = 2.5)

Relating to the OCD Voice

While there were no *a priori* hypotheses about relations with the OCD voice, it was identified as a relevant theme from participant responses. Participants described both the degree

of alignment between their own beliefs and those expressed by the OCD voice, as well as their perceived relationship with the voice. For about three quarters of participants, the OCD voice expressed beliefs that conflicted with what they believed to be true. For example, one participant described the dissonance between what they believed and what the OCD voice suggested:

> "So, [the OCD voice] would bring up the question, it's like 'Oh well you have a preference towards this hair colour so that must mean you are attracted to this character because this character possesses that hair colour.' And I'm like 'Well that doesn't make sense. That's not how I determine whether or not I'm attracted to something or someone.', a reasonable talk down."

In contrast, some participants (20%) described the OCD voice as expressing beliefs that aligned with their own. For example, one participant described the convergent beliefs as:

> "I think a lot of the time they can be justified or correct, and it makes it very difficult to doubt them or to fight or resist them because so often they're on the, like I said correct side. Almost kind of like that mother's intuition, I guess. So, it does make it very difficult to fight against them."

Moreover, 20% of participants described difficulty disentangling what they considered to be their own thoughts and what they considered to be OCD-related thoughts. For example, one participant described this difficulty as:

> "The [OCD] voice and my own voice are very intermingled… Sometimes they share values, so that makes it hard. It makes it harder to be defiant to it cause it's like 'You're wrong' and I'm like 'Well, you do have a point.'"

Over half of participants felt as though the OCD voice was something separate to themselves. For example, one participant described the separation as:

> "It's almost like it's not me, like it's a different person who's not rational, because I feel like I am rational, and it feels like there's so much cognitive dissonance between my compulsions or like my obsessions and what I actually know to be true or believe… it feels like out of touch with reality. It feels like it's separate from me because I don't want to believe that I'm out of touch with reality."

Another participant described the relationship between the OCD voice and themselves as:

> "[The OCD] has a voice…it's different than my normal internal dialogue…I find that when it's the OCD it's definitely more aggressive, cause it's trying to catch my attention and to let me know that you're scared or to be scared. Whereas my normal dialogue is just easy going…It's more about the tone and emotion, like it's trying to get me to react immediately. It's trying to grab my attention."

Thus, most participants related to the OCD voice as if it were separate to themselves and described an internal conflict between the beliefs expressed by the OCD voice and what they believed to be true. Percentages and frequency counts of participants' relationship with the OCD voice are presented in Table 9.

Table 9.

Percentages and Frequency Counts of Participants' Relationship with the OCD Voice

	Participants ($N = 20$)
Conflicting beliefs	75% $N = 15$
Convergent beliefs	20% $N = 4$

Difficulty differentiating OCD from self	20% *N* = 4
Dominant to other thoughts	55% *N* = 11
My voice	15% *N* = 3
OCD voice as if separate from self	60% *N* = 12

Disengaging the OCD Voice

Consistent with the hypothesis, participants used different strategies to disengage the voice between when the obsession evoked a compulsion and when it did not, wherein complying with the OCD voice was used to subside its presence 70% of the time during episodes when a compulsion was performed. In contrast, other strategies such as dismissing the OCD voice (60%) and distraction from the obsession (50%) were used when the compulsion was resisted. One participant described their experience disengaging the OCD voice as:

"As soon as I start showering, I think [the OCD voice] goes like 'Bye! Okay, you did it.'" Another participant described their need to perform the compulsion as:

> "Once I went and checked [the OCD voice stopped] …the last thought was 'You needed to check. Now you can go to bed.' I mean the doors were locked, but I needed to check to give myself that release to go to bed."

Over half of participants dismissed the OCD voice as not relevant during at least one O-C episode. This was described by one participant as:

> "So, I think in this case I was able to kind of notice that the thought was OCD and kind of dismiss it as not really mattering and then within a few moments it started to dissipate a bit more quickly."

Half of participants used distraction as a means to disengage from the OCD voice. This included remaining present in the moment or actively seeking other tasks to engage in. For example, one participant described distraction as:

> "I think when we got to our, to drop off my other two boys at my mom's house with the hustle and bustle of the morning it totally slipped my mind about the door."

In summary, most participants disengaged the OCD voice through performance of the compulsion. Other commonly employed strategies included dismissing the OCD voice as not relevant and distraction. Percentages and frequency counts of participants' strategies to disengage the OCD voice are presented in Table 10.

Table 10.

Percentages and Frequency Counts of Participants' Strategies to Disengage the OCD Voice

	Participants ($N = 20$)
Accepting uncertainty and imperfection	25% $N = 5$
Compliance with the OCD voice	70% $N = 14$
Dismiss as not relevant for further processing	60% $N = 12$

Distraction from obsession	50% $N = 10$
Feared outcome did not occur	5% $N = 1$
Identify thought as OCD	35% $N = 7$
Just right feeling	10% $N = 2$
Non-compliance with OCD voice	40% $N = 8$
Other priorities	25% $N = 5$
Reference to personal values	5% $N = 1$
Threated removed	15% $N = 3$

Emergence of the OCD Voice

Although not hypothesised *a priori*, there was variability in the extent to which participants conceptualised the OCD voice prior to the interview. Almost half of participants shared that they first thought of their obsessions as a voice during psychotherapeutic treatment for OCD. For example, one participant explained the OCD voice emerged from:

> "I would say the very first time I did CBT is when it really cracked for me and I was like 'Okay, this is a separate'…not that [the OCD voice is] a separate thing from me but it's

like there's you and your voice and then you have this little condition. So, it's not really your voice, but yeah, I always thought of it as a little voice because it sounds like, I mean it is, it's your inner voice."

Additionally, over a quarter of participants described conceptualising the obsessions they experience as an OCD voice on their own, before engaging in formal treatment for OCD. For example, one participant described understanding the OCD voice as:

"I've always visualized [OCD] as I'm having a debate with this goblin in my brain... I don't think there was a specific time or event that caused it to kind of be visualized in that way but, I just feel like as long as I've been thinking about OCD or since the intrusive thoughts have really popped up that's kind of how I visualized it."

Insights about the OCD voice were gleaned both from psychotherapy and the interview process. For example, one participant shared what was helpful during treatment:

"…the way the clinician talked about it was always like "Your OCD is saying this' and that was helpful."

Another participant described the impact of the interview process as:

"…just the fact that you've now said, which I find super fascinating, that it's the OCD voice, I just thought that was me saying, "Oh God, here's me having a dialogue" the fact that you've put a name to that, you're acknowledging that, yeah, it's very interesting to me."

In summary, the OCD voice emerged both through treatment and based on participants insights of their experience. Insights about the OCD voice were gleaned from psychotherapy as well as the interview process. Percentages and frequency counts of participants' origins of the OCD voice are presented in Table 11.

Table 11.

Percentages and Frequency Counts of Participants' Origins of the OCD Voice

	Participants ($N = 20$)
Interview with researchers	30% $N = 6$
Never considered OCD voice	5% $N = 1$
New insights about OCD voice	25% $N = 5$
Psychotherapy	40% $N = 8$
Self-discovered	35% $N = 7$
Social media	5% $N = 1$

Interrater Reliability

Cohen's kappa was used to estimate inter-rater reliability between the author and a research assistant. Kappa values were calculated separately for each code. Units of analysis were defined as meaningful transcript excerpts, either containing both the interviewer's question and the participant's response or the participant's response alone. A kappa value of 0.80 or above was considered acceptable (McHugh, 2012).

An iterative consensus-building process was followed. The research assistant first applied the coding framework to one transcript using predefined themes, then independently applied open-ended coding to the remaining 19 transcripts. The coders met weekly over five weeks to discuss coding discrepancies. Differences in coding were reviewed collaboratively, with each coder providing a rationale. In most cases, a consensus was reached, and the author's codes were updated with the final decisions.

The reported kappa values reflect reliability after consensus. Coders reached full agreement on all codes (κ = 1.00), apart from internal voice (κ = 0.99), conflicting beliefs (κ = 0.98), opposition (κ = 0.98), challenging the OCD voice (κ = 0.98), self-reassurance (κ = 0.98), dismiss as not relevant (κ = 0.98), and felt sense (κ = 0.97). Overall, the kappa values reflect strong inter-rater reliability.

Quantitative Analyses: Patterns of OCD Voice Characteristics

The objectives of the quantitative analyses were to evaluate whether OCD voice tone, authority, and engagement differed across O-C episodes in which a compulsion was performed or resisted, whether OCD voice appraisals affected the severity of OCD symptoms, and whether insecure attachment related to appraisals of the OCD voice.

Preliminary Analysis

Prior to completing the pre-registered analyses, each variable was screened for normality, univariate and multivariate outliers, and internal reliability. Normality was assessed using the cut offs of 3 and 10 for skew and kurtosis, respectively (Kline, 1998), and was further evaluated through visual inspection of histograms. Univariate outliers were defined as scores above or below three standard deviations from the mean, while multivariate outliers were addressed using Mahalanobis distance with a cut off of 13.82 (Tabachnick & Fidell, 2007). Internal reliability

was assessed using Cronbach's Alpha with a cut off of 0.80. There were no violations of normality and no univariate or multivariate outliers identified.

The mean DOCS score ($M = 27.10$) exceeded the clinical cut off for distinguishing OCD from anxiety disorders (18-20; Rapp et al., 2016), indicating clinically significant symptoms in the sample. There were moderate, positive correlations between the DOCS and perceived OCD voice benevolence ($r(18) = .73$, $p <.01$), omnipotence ($r(18) = .71$, $p < .01$), and power ($r(18) =.51$, $p <.01$), suggesting that scores on the DOCS were not simply a reflection of mood state. In contrast, perceived OCD voice malevolence was not significantly correlated with the DOCS ($r(18) = .05$, $p > .05$) and showed low reliability ($\alpha = .58$). As such, malevolence was removed as a predictor from the final multiple regression model. Engagement with the OCD voice and resistance to the voice also demonstrated low reliability ($\alpha = .49$; $\alpha = .69$) and were removed from the correlations used to address the seventh research question.

The attachment facets *Preoccupation with Relationships* and *Relationships as Secondary* showed low reliability ($\alpha =.55$; $\alpha = .74$). Given moderate positive correlations between *Preoccupation with Relationships* and *Need for Approval* ($r(18) = .74$, $p < .01$), and between *Discomfort with Closeness* and *Relationships as Secondary* ($r(18) = .76$, $p < .01$), the facets were combined into two composite variables representing anxious and avoidant attachment, respectively. These composites were used in the correlation matrix to address question seven of this study. Descriptive statistics and reliability coefficients, and bivariate correlations for the questionnaire variables are presented in Table 12 and Table 13, respectively, in Appendix H.

OCD Voice Believability, Reasoning, and Dismissing Across O-C Episodes

Paired Samples T-Tests. OCD voice believability, as well as effort and success in reasoning with and dismissing the voice, were considered for an *a priori* composite representing

engagement with the OCD voice. However, a negative Cronbach's alpha led to their retention as five separate single-item variables.

Believability of the OCD voice, along with reasoning and dismissal effort and success, was compared between O-C episodes when a compulsion was performed versus resisted. The results were in partial support of the hypothesis. Contrary to expectations, the difference was not statistically significant for OCD voice believability, $t(19) = .79$, $p = .438$, $d = .18$, nor effort dismissing the OCD voice, $t(19) = -1.41$, $p = .175$, $d = -.32$, such that the extent to which the OCD voice was believed to be true did not differ between episodes, nor did the effort participants used to dismiss the OCD voice. However, the difference was statistically significant for success dismissing the OCD voice, $t(19) = -4.80$, $p < .001$, $d = -1.07$, effort reasoning with the OCD voice, $t(19) = -3.65$, $p < .01$, $d = -.82$, and success reasoning with the OCD voice, $t(19) = -2.61$, $p < .05$, $d = -.58$, such that participants used more effort to reason with the OCD voice and rated themselves as more successful reasoning and dismissing the OCD voice when they resisted the compulsion compared to when they performed the compulsion. Figures 1-3 present the relations between O-C episode type and dismissal success, effort reasoning with the OCD voice, and reasoning success, respectively.

Figure 1.

Success Dismissing the OCD Voice by O-C Episode Type

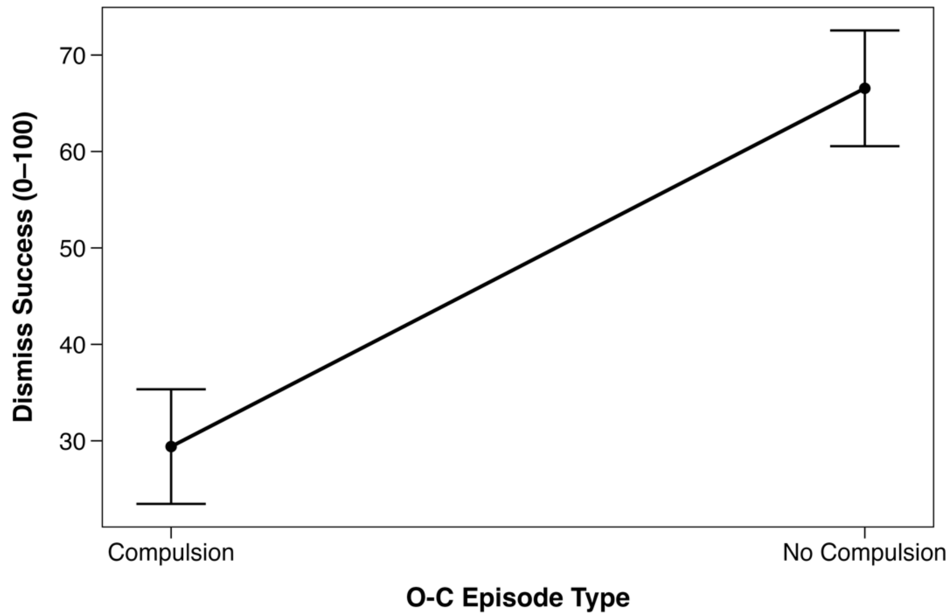


Figure 2.

Effort Reasoning with the OCD Voice by O-C Episode Type

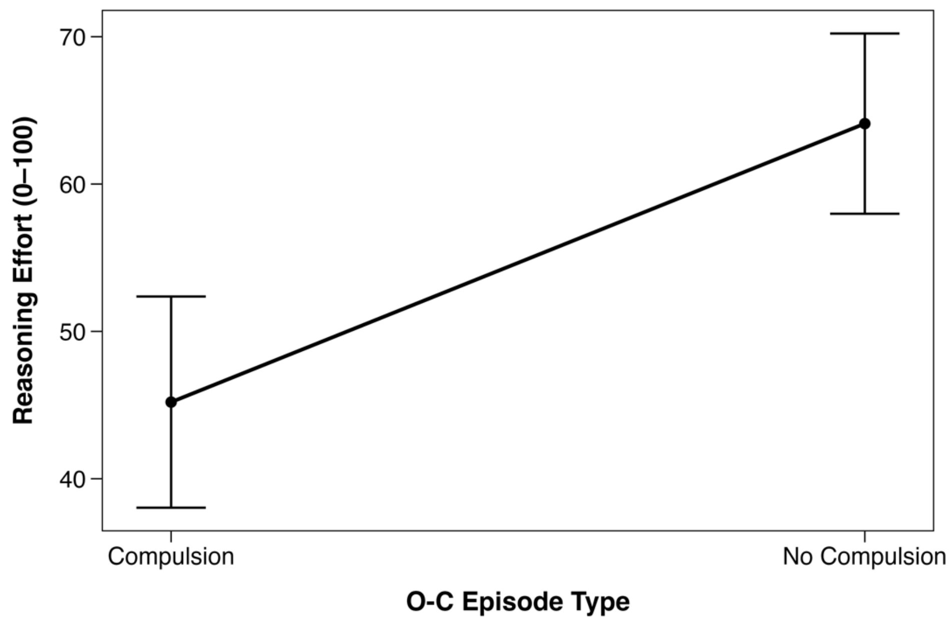
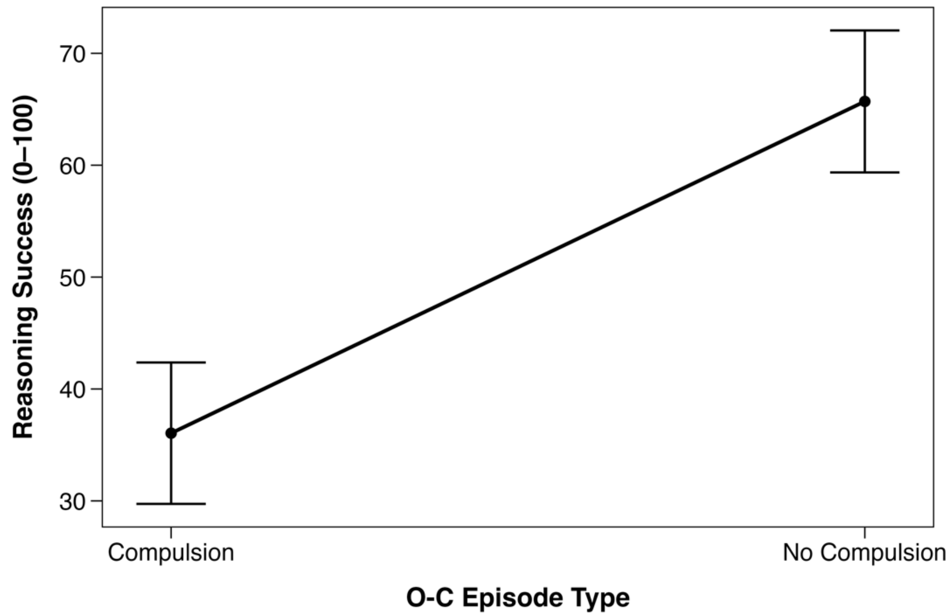


Figure 3.

Success Reasoning with the OCD Voice by O-C Episode Type



OCD Voice Tone and Authority Across O-C Episodes

Paired Samples *T*-Tests. Tone and authority of the OCD voice were compared between an O-C episode in which a compulsion was performed and resisted. Contrary to expectations, the differences were not statistically significant, such that the tone, $t(19) = .23$, $p = .822$, $d = .05$, and authority, $t(19) = -.52$, $p = .306$, $d = -.12$, with which the OCD voice was experienced did not differ between episodes. Descriptive statistics and paired samples *t*-test coefficients for the interview rating scales are presented in Table 14. Bivariate correlations between the interview rating scales are presented in Tables 15-17 in Appendix H.

Table 14.

Descriptive Statistics and Paired Samples T-Test Coefficients for Interview Rating Scales

	Compulsion Episode		No Compulsion Episode		Mean Difference	*t* (19)	*d*
	M	***SD***	***M***	***SD***			
Beliefs	61.30	31.40	54.65	29.69	6.65	.79	.18

Dismiss Effort	47.65	35.00	61.25	27.28	-13.60	-1.41	-.32
Dismiss Success	29.90	27.46	66.05	26.67	-36.15	-4.80***	-1.07
Reason Effort	43.20	30.31	66.10	27.73	-22.90	-3.65**	-.82
Reason Success	37.05	29.48	64.70	28.20	-27.65	-2.16*	-.58
Tone	34.70	25.50	32.95	21.51	1.75	.23	.051
Authority	26.30	19.89	28.80	16.62	-2.50	-5.17	-.116

Note. $N = 20$ for all variables. Each variable was measured on a scale from 0 (i.e., absence of belief, effort, or success; cold tone; dominant authority) to 100 (i.e., complete presence of belief, effort, or success; warm tone; submissive authority). A one-tailed paired samples *t*-test was conducted for authority of the OCD voice. ****p* significant at the .001 level. ***p* significant at the .01 level. **p* significant at the .05.

OCD Voice Malevolence, Benevolence, Omnipotence, Power, and OCD Symptom Severity

Multiple Regression. Assumptions were met for linearity, homoscedasticity, and independence of errors ($DW = 2.11$, $p > .05$). Multicollinearity between the predictors omnipotence and power (*VIF*s = 4.87 and 4.76, respectively; $r(18) = .83$, $p < .01$), was addressed by removing power from the final model and retaining omnipotence, which was more strongly correlated with OCD symptom severity (DOCS total score). The final model predicted OCD symptom severity from benevolence and omnipotence. The preliminary models are presented in Table 18 and Table 19, in Appendix I.

The final model significantly predicted 66% of the variance in OCD symptom severity, $F(2, 17) = 16.28$, $p < .001$. Perceived OCD voice benevolence predicted OCD symptom severity

($\beta = 0.49$, $t(17) = 2.78$, $p < .05$) and accounted for 49% of the variance. Perceived OCD voice omnipotence predicted OCD symptom severity ($\beta = 0.43$, $t(17) = 2.44$, $p < .05$) and accounted for 43% of the variance.

Results from the multiple regression analysis were in partial support of the hypothesis, such that benevolence and omnipotence predicted OCD symptom severity. Regression coefficients for the final model are presented in Table 20. The unadjusted relation between OCD symptom severity and OCD voice benevolence and omnipotence is presented in Figure 5.

Table 20.

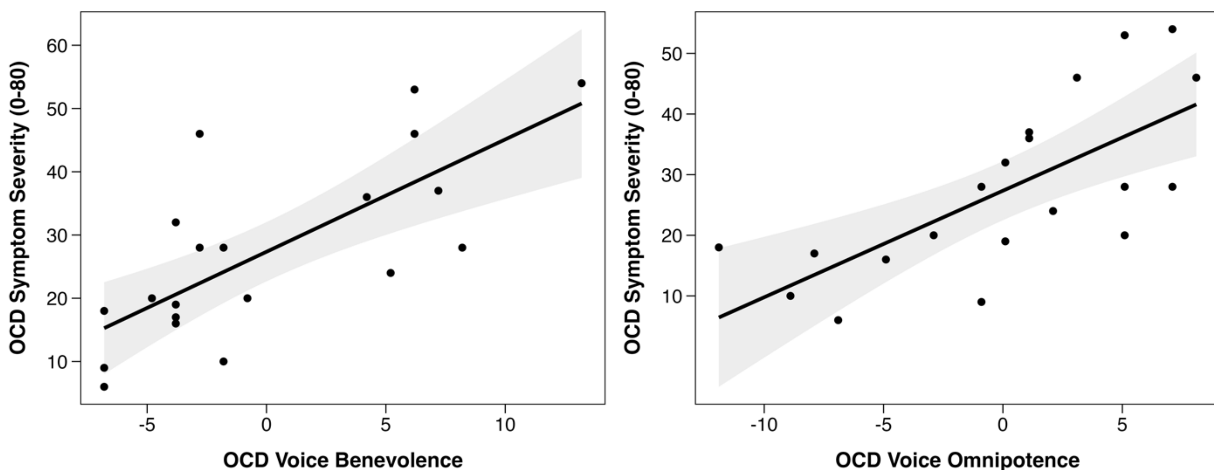
Regression Coefficients for Benevolence and Omnipotence Predicting OCD Symptom Severity

<table>
<tr><th></th><th>B</th><th>SE</th><th>β</th><th>t</th><th>p</th><th>R^2</th><th>adj. R^2</th><th>F</th></tr>
<tr><td>Benevolence</td><td>1.18</td><td>.42</td><td>.49</td><td>2.78</td><td>.013</td><td rowspan="2">.66</td><td rowspan="2">.62</td><td rowspan="2">$F(2, 17) = 16.28$, $p < .001$</td></tr>
<tr><td>Omnipotence</td><td>1.06</td><td>.43</td><td>.43</td><td>2.44</td><td>.026</td></tr>
</table>

Note. *B* = Raw regression coefficient; *SE* = Standard error of *B*; β = Standardized coefficient.

Figure 4.

Unadjusted Associations Between OCD Severity and Voice Benevolence and Omnipotence



Adult Attachment and OCD Voice Appraisals, Engagement, and Resistance

The final hypothesis, which predicted associations between insecure attachment and OCD voice appraisals and responses, was not supported. Although anxious attachment showed a moderate, positive correlation with OCD voice malevolence, this correlation was not interpreted due to low reliability of the malevolence construct.

Discussion

The purpose of this study was to replicate and extend findings from Chiang and Purdon (2020) by exploring people's experience with the OCD voice, including its tonal qualities and association with OCD symptoms and attachment style. To explore this, participants with a past diagnosis of OCD were administered an interview that asked about their experience with the OCD voice across two recent O-C episodes: one in which a compulsion was performed and another in which a compulsion was resisted. Appraisals of the OCD voice, OCD symptoms, and attachment style were assessed using well-validated measures.

OCD Voice Prevalence and Experience

The first aim was to determine whether individuals with OCD experienced an OCD voice across O-C episodes. In line with the first hypothesis, all participants reported experiencing an OCD voice. These findings are consistent with Chiang and Purdon (2020), who found that over half of participants described experiencing obsessional doubt as an internal voice. The higher endorsement observed in the current study may reflect participants reporting on a broader range of obsessional expressions during the O-C episode, rather than focusing specifically on obsessional doubt. A study by Noordenbos and colleagues (2014) similarly found that over 90% of participants endorsed experiencing an anorexic voice. The OCD voice was the most prominent obsessional experience for some participants, while for others a felt sense was more predictive of a compulsion. Consistent with Chiang and Purdon (2020), the OCD voice was often accompanied by other obsessional forms such as mental imagery or a felt sense. Taken together, these results suggest that the OCD voice is a prevalent obsessional experience, with endorsement comparable to the anorexic voice.

In addition to its prevalence, the OCD voice varied in its expression of obsessional content. The most common OCD voice expressions included demand for action, consequence of non-action, and doubt. Interestingly, both demand for action and consequence of non-action reflect the need to act against a feared event, whether that is acting to prevent the threat from occurring (e.g., consequence of non-action or demand for action) or remediating a negative outcome that has already occurred (e.g., demand for action). Given that individuals with OCD are prone to an overvalued sense of responsibility, it is possible that these calls to action exploit this vulnerability, thereby increasing the likelihood of performing a compulsion. In this sense, the OCD voice and the heightened sense of responsibility may work together to create a powerful sense of urgency, where the individual feels solely responsible for preventing or remedying harm. In addition, the finding that the OCD voice frequently expressed doubt aligns with existing literature, which identifies doubt as a core feature of OCD (Chiang & Purdon, 2020; Radomsky et al., 2014; Samuels et al., 2017).

Moreover, the OCD voice was experienced not only during expression of the obsessional concern, but also during the compulsion. This finding suggests that the OCD voice may be experienced throughout the O-C cycle and contribute to its maintenance. For example, experiencing demands for action and imperative for certainty while performing a compulsion may promote repetition of the ritual beyond previously known factors. While the O-C cycle is well established in the literature, the OCD voice may represent a phenomenological dimension of this cycle that is particularly relevant for individuals with OCD.

In summary, the OCD voice was a prevalent obsessional experience, conveying both the obsessional concern and expectations of compulsive behavior. The forms in which the OCD

voice was experienced may exploit specific vulnerabilities characteristic of the disorder, possibly contributing to the O-C cycle.

Engagement with the OCD Voice

The second aim explored individuals' engagement with the OCD voice across O-C episodes. Consistent with the hypothesis, participants frequently engaged with the OCD voice in an internal dialogue, both when the obsession led to a compulsion and when the compulsion was resisted. An internal dialogue included one or more exchanges between the OCD voice and a responding voice, wherein the OCD voice expressed an obsessional concern and the responding voice agreed, opposed, or reasoned against the OCD voice. Notably, participants experienced an average of four OCD voice forms across the O-C episodes. That is, rather than a single repeated command, statement, or question, the OCD voice was dynamic, shifting its expressions within a single O-C dialogue. This dynamic back-and-forth aligns with cognitive-behavioural conceptualizations of obsessions as repetitive and persistent (Rachman & de Silva, 1978). However, the adaptability of the OCD voice may render it more challenging to dismiss or reason against than a single, repetitive intrusion. The varied expressions in response to internal resistance may heighten its persuasive power and credibility.

The dynamics of most internal dialogues reported in this study align with how participants described their relationship with the OCD voice. Specifically, the OCD voice primarily spoke in second person (e.g., 'you') while the responding voice spoke in first person (i.e., 'I'). In conversational dynamics, second-person pronouns often refer to another individual, while first-person pronouns refer to the self. This aligns with the finding that over half of participants experienced the OCD voice as is separate to themselves. This separation between the self and OCD voice may mirror the concept of self-ambivalence. Specifically, self-ambivalence

reflects the internal conflict arising when an intrusive thought threatens a personal value (Bhar and Kyrios, 2007). Interestingly, three quarters of participants reported personal beliefs that conflicted with those expressed by the OCD voice, suggesting a high degree of internal conflict. Research on the impacts of self-ambivalence show that an internal state of conflict is highly distressing (Kelly, Mansell, & Wood, 2015; Moberly and Dickson, 2018). As such, participants' relations to the OCD voice, including their internal experience of the dialogue and conflicting beliefs may be both a representation of self-ambivalence and a strategy to cope with the distress related to internal conflict.

Moreover, not all dialogues reflected conflict between the OCD voice and the self. For a minority of participants, the responding voice agreed with the OCD voice, and expressed beliefs that converged with those of the OCD voice. This highlights the possible relevance of egosyntonic obsessional dialogues in OCD. Although egodystonic obsessions are recognised as a key feature of OCD, egosyntonic obsessions are considered a feature of obsessive-compulsive personality disorder (OCPD; Rizvi and Torrico, 2023; Vaghi et al., 2019). Nonetheless, within the context of the OCD voice, egosyntonic dialogues may be more potent than egodystonic dialogues as the OCD voice is unlikely to evoke resistance from the responding voice, possibly leading to a higher degree of compliance.

In addition to verbal engagement, participants also responded behaviourally by performing compulsions, and emotionally with anxiety, sadness, frustration, and guilt. These findings suggest that beyond a prevalent obsessional experience, the OCD voice may also serve as a clinically relevant feature of the disorder. Research on the anorexic voice has found associations between its experience and pathology of anorexia nervosa, including key symptoms

and illness duration (Pugh & Waller, 2017). Taken together, these finding suggest that the phenomenology of intrusive thoughts may impact both behavioural and emotional responses.

Overall, the OCD voice was frequently engaged with in dynamic internal dialogues which often reflected separation between the OCD voice and the self. In addition to interpersonal engagement, the OCD voice evoked behavioural and emotional responses, suggesting that its impact may extend beyond the verbal expression of obsessions.

Subsiding the OCD Voice

The third aim was to determine events in the O-C episode associated with the OCD voice subsiding. In line with the hypothesis, participants attributed different reasons for why the OCD voice subsided between episodes when the obsession evoked a compulsion and when it did not. During episodes when a compulsion was performed, it was commonly the compulsion that participants attributed to the OCD voice subsiding. This is consistent with the relatively high degree of satisfaction produced by performing a compulsion (Dean and Purdon, 2021). Specifically, Dean and Purdon (2021) found that over three-quarters of participants with OCD terminated a compulsive episode because they felt satisfied that the compulsion had been performed correctly. If the OCD voice serves as a verbal expression of both the perceived threat (e.g., “You’re dirty now.”) and the compulsion goals (e.g., “Make sure you wash [your hands] properly.”), then performing the compulsion may act as an effective strategy to subdue the OCD voice. In contrast, during episodes when the compulsion was resisted, the OCD voice frequently subsided as a result of dismissing it as not relevant, distraction, and identifying the intrusive thought as OCD. Given that tonal properties of the OCD voice did not significantly differ across O-C episodes, there were likely other factors contributing to the differential use of strategies to subdue the OCD voice. For example, mood, stress, and external pressures, such as interference

with other goals (e.g., "I knew [the compulsion] would cut into my time with [my son]"), may influence whether a compulsion is performed or whether another strategy is employed to cope with the distress (Salkovskis, 1985; Yap, Mogan, and Kyrios, 2012). Taken together, these findings suggest that there were varied strategies used to subdue the OCD voice depending on whether the compulsion was performed or resisted. This may be due to factors unrelated to qualities of the OCD voice.

Tonal Properties of the OCD Voice

The fourth aim was to identify the tonal properties of the OCD voice across O-C episodes. Contrary to the hypotheses, neither OCD voice tone nor authority differed across episodes. Specifically, the OCD voice was approximately neutral in tone and dominant in authority both when the obsession evoked a compulsion and when the compulsion was resisted. It is possible that tonal properties alone do not predict whether a compulsion is performed in response to the OCD voice. Instead, related factors such as the message content, or unrelated factors such as a felt sense may be more predictive of a compulsion. For example, some participants provided different obsessional content for the two O-C episodes, suggesting that although one obsessional domain may be easier to dismiss, the other may be more salient, irrespective of OCD voice tone or authority. In addition, participants may have focused more on one obsessional domain during treatment, meaning they had more practice resisting compulsions related to one domain versus others. Alternatively, participants may have interpreted OCD voice tone and authority differently, affecting which tonal properties were most compelling. If this were the case, then individual differences may be masked by group-level ratings. Interestingly, some participants rated OCD voice tone as warmer when the compulsion was performed and colder when it was resisted, whereas others rated it in reverse. Empirical research on

motivational prosody suggests that a warm tone of voice facilitates motivation to collaborate and interpersonal closeness, whereas controlling voices that lack warmth evoke defiance (Paulman & Weinstein, 2023; Weinstein et al., 2020; Vrijders et al., 2024). In the context of the OCD voice, this suggests that some individuals may obey a voice with a warm tone that communicates concern, while others may be more vulnerable to a cold and hostile tone.

Overall, the absence of within-group differences may reflect the influence of factors beyond tone and authority in predicting compulsions, or the presence of individual differences in the perceived persuasiveness of tone and authority. A neutral dominant OCD voice aligns with preliminary research by Chiang and Purdon (2020), highlighting a potentially consistent feature of the OCD voice across studies.

Between-Episode Engagement with the OCD Voice

The fifth aim was to explore whether engagement with the OCD voice differed between O-C episodes. Contrary to expectations, internal reliability was violated for the *a priori* composite, engagement with the OCD voice. As such, the constructs OCD voice believability, as well as effort and success in reasoning with and dismissing the voice, were examined independently. Low internal reliability may indicate that the underlying constructs are weakly related. Minimal associations were observed among the constructs across conditions, possibly due to the influence of both internal factors (e.g., self-doubt, internal reference to values) and external factors (e.g., projected criticism, practical implications of the compulsion) during O-C episodes. In addition, it is possible that for some participants, engaging with the OCD voice was a compulsion in and of itself. If this were the case, then OCD voice dismissal and reasoning effort may be rated highly, irrespective of OCD voice believability. As such, while there was reason to believe that the

constructs were theoretically related, additional influences may have rendered them unrelated *in vivo*.

Results comparing the individual constructs across episodes showed that OCD voice believability did not differ between when the compulsion was performed versus resisted. This finding may reflect a combination of influences. First, empirical studies have found that many individuals with OCD recognise their obsessions as not entirely rational, yet they continue to engage in compulsions (Audet, Aardema, & Moulding, 2016; Vrijders et al., 2024). This suggests that a compulsion can be performed independent of OCD voice believability. In addition, external influences such as practical implications of the compulsion and judgement from others may inhibit the individual from performing a compulsion despite high believability (Durna, Yorulmaz, & Aktaç, 2019). Taken together, OCD voice believability may be equivalent at the group-level due to habitual compulsion performance and influence of external factors.

Moreover, efforts to dismiss the OCD voice did not differ across O-C episodes. It is possible that during the compulsion episode, participants did not attempt to resist the OCD voice and instead complied with its demands more readily. Additionally, less effort may have been needed to dismiss the OCD voice during episodes when the compulsion was resisted, either because the OCD voice was easier to dismiss or because participants relied on alternative strategies to reduce its influence.

In contrast, participants perceived their success dismissing and reasoning with the OCD voice differently across episodes, with success rated higher for episodes in which the compulsion was resisted. Participants were asked to rate their success dismissing and reasoning the OCD voice before they engaged or resisted the compulsion. As such, differences in perceived success should not simply reflect whether response inhibition was achieved. Instead, it may relate to

whether the OCD voice persisted after attempts to reduce its presence. Given that compulsions are an efficient means to temporarily reduce distress and achieve compulsion goals (Dean and Purdon, 2021), participants may have been more likely to perform a compulsion when other strategies to subdue the OCD voice were unsuccessful or under certain emotional or environmental conditions.

Finally, effort reasoning with the OCD voice differed across O-C episodes, with higher ratings during episodes when the compulsion was resisted. This suggests that individuals actively resisting a compulsion may engage more in reasoning strategies, such as self-reassurance, challenging the OCD voice, and providing evidence against the obsession. This pattern aligns with a meta-analysis by Duncan et al. (2014), which proposed that learning to defend against the anorexic voice may be an important target in recovery from eating disorders. Similarly, reasoning with the OCD voice may help prevent compulsion performance. However, it is also possible that reasoning itself functioned as a mental ritual. Rather than relying on one's own judgement, reasoning with the OCD voice may reinforce the OCD system overtime by treating it as authoritative and worthy of attention and appeasement.

In summary, a significant effect of episode on reasoning efforts indicates that individuals with OCD may expend greater effort resisting the OCD voice during episodes in which the compulsion is not performed. However, reasoning in turn may serve to maintain the OCD system over time.

OCD Voice Appraisals and Symptom Severity

The sixth aim was to determine associations between OCD voice appraisals and OCD symptom severity. The results were in partial support of the hypothesis. Specifically, perceived OCD voice benevolence and omnipotence positively predicted OCD symptom severity, while

malevolence and power were removed from the model due to low reliability and multicollinearity, respectively. The final model is consistent with research on the anorexic voice which found that perceived voice benevolence and omnipotence, but not malevolence were linked to clinical outcomes of anorexia nervosa (Pugh and Waller, 2017). Several factors may account for the low reliability of malevolence. First, malevolence may be less applicable to the OCD voice. While the anorexic voice in eating disorders has been described as highly critical (Noordenbos et al., 2014), the OCD voice often expressed warnings of potential or actual threat, which may serve as a protective factor and thus, align more closely with benevolence. Second, it is possible that malevolence does not influence OCD symptoms. Research on command hallucinations in psychosis has found that malevolence was associated with emotional disturbance, while voice benevolence and omnipotence were linked to more severe positive psychotic symptoms and a greater intent to comply with the voice (Dugré and West, 2019; Hacker et al., 2010). In the context of OCD, an OCD voice that is both benevolent and omnipotent may be especially compelling, experienced as an all-knowing voice of protection against perceived threats. Given that individuals with OCD often mistrust their own judgement, a voice that is perceived as benevolent and omnipotent may reinforce engagement with obsessions and compulsions.

Taken together, the severity of key OCD-related symptoms in this sample was associated with appraising the OCD voice as benevolent and omnipotent. This finding mirrors the eating disorder and psychosis literatures, wherein voice-related appraisals have been shown to influence severity of pathology (Dugré and West, 2019; Hacker et al., 2010; Pugh and Waller, 2017).

Interpersonal Attachment and the OCD Voice

The seventh aim was to explore associations between specific facets of insecure attachment and OCD voice appraisals and responses to the OCD voice. After adjusting for variables with low reliability, the results were not in support of the hypothesis. It is possible that appraisals and responses to the OCD voice do not relate to adult attachment style; however, empirical research suggests that one's internal dialogical interactions mirror interpersonal relationships with close others (Lukowitsky and Pincus, 2011). Additionally, research supports interpersonal features of OCD with robust relations between insecure attachment and OCD symptoms (Dean and Purdon, 2021; Pozza et al., 2021; van Leeuwen et al., 2020). Results from the current study suggest that assessing adult attachment may not adequately address potential links with the OCD voice. It is possible that assessing conflict dynamics during childhood in the context of the OCD voice may allow for a more nuanced exploration of individuals' interpersonal experiences. Particularly, whether they have drawn links between the OCD voice and their behavioural and emotional patterns in interpersonal relationships.

Overall, there was an absence of consistent associations between facets of insecure attachment and the OCD voice; however, examining conflict dynamics may help elucidate possible relations between these factors.

Implications

The most efficacious treatment for OCD is ERP, however, only about 50% of people benefit and responders experience only a 46% improvement in symptoms (McKay et al., 2015; Öst et al., 2022). As such, there is precedent to understanding factors overlooked by current psychological models of OCD. Preliminary research by Chiang and Purdon (2020) and empirical studies on the anorexic voice and self-critical depression suggest that an internal voice is a prevalent and clinically significant feature of psychopathology (Noordenbos et al., 2014; Pugh

and Waller, 2017; Stinckens et al., 2012). The current study established that the OCD voice is commonly experienced as an authoritative voice that relates to the severity of obsessions and compulsions. Therefore, identifying and addressing one's relationship with the OCD voice may be an important target in treatment.

The results of this study may help further specify existing cognitive-behavioural models of OCD by contributing a nuanced understanding of the phenomenology underlying the O-C cycle. Specifically, while current models emphasize the role of negative appraisals related to harm and responsibility in driving the compulsion, the present findings suggest these vulnerabilities may interact with the OCD voice, which frequently expressed demands for action, warnings about consequences of non-action, and doubt. These expressions may intensify underlying vulnerabilities and heighten the perceived urgency to act on obsessions. Additionally, while it is well established that compulsions are reinforced by the temporary reduction of distress, this study may help clarify the nature of that distress. Qualitative findings suggest that the OCD voice was associated with negative emotions such as anxiety, frustration, and guilt. As such, compulsions may be reinforced not only by general distress reduction, but also by the subsidence of the OCD voice and its emotionally aversive content. Finally, while psychological models depict the O-C cycle as a relatively linear progression from obsession to distress to compulsion, the qualitative data from this study suggest a more dynamic process. Most participants described recursive and interactive internal dialogues between an OCD voice and a responding voice. This highlights the potential for a more nuanced understanding of the O-C cycle, in which the pathway to a compulsion may involve complex internal negotiations, even when the behavioural outcome appears the same.

Externalizing techniques have been used in combination with CBT to treat pediatric OCD (Banting and Lloyed, 2017; Shoenfelt and Weston, 2007). In clinical application, externalisation involves conceptualising the OCD as distinct from the self and talking back to it by challenging its demands. Externalizing OCD is proposed to promote nonattachment and encourage a sense of control (Shoenfelt and Weston, 2007). While empirical studies have supported externalizing as an efficacious addition to CBT in pediatric populations, this technique has not been generalised to treatment of adults with OCD. Results from the current study found that over half of participants conceptualised the OCD voice as distinct from themselves and often challenged the OCD voice. As such, implementing eternalising into treatment of adult OCD may provide an avenue to which the relationship with the OCD voice can be addressed. Additionally, externalizing may be a strategy to reduce distress associated with conflicting beliefs expressed by the OCD voice.

Moreover, two-chair enactments represent an experiential intervention designed to address conflicting perspectives or aspects of the self (Pugh, 2017). In practice, clients alternate between two chairs, each representing opposing beliefs or internal voices. This technique has been applied in the treatment of eating disorders, depression, and psychosis, and preliminary research supports its efficacy both as a standalone intervention and when integrated with other therapeutic approaches (Chadwick, 2003; Dolhanty and Greenberg, 2007; Greenberg and Watson, 1998). Clients often report enhanced intrapersonal awareness and metacognitive insight as a result (Pugh, 2017). Theoretical research on chairwork suggests its potential benefits for challenging guilt-inducing self-talk in OCD, wherein the client develops a "healthy voice" used to challenge the "guilt inducing voice" (Saliani et al., 2024). In the context of the OCD voice,

two-chair enactment may offer a means of addressing perceived voice authority by facilitating a shift in power from the OCD voice to the self through the re-enactment of internal dialogues.

Limitations and Future Directions

The present study had several limitations that impact the generalisability of its findings. Specifically, measures demonstrated low reliability and the sample size was small with little diversity in age, gender, and ethnicity. This limitation affected both the qualitative and quantitative components of the study. Specifically, the multiple regression analysis was underpowered and as a result the findings should be interpreted with caution. In addition, thematic saturation was not achieved in the qualitative analysis. Saturation was defined as the point at which no new codes or themes emerge; however, a new code was identified in the final interview, suggesting that additional meaningful experiences of the OCD voice may have emerged with a larger sample (Saunders et al., 2017). Although Chiang and Purdon (2020) reached saturation after 12 participants, the current study asked participants about a broader range of obsessional experiences outside of obsessional doubt. This methodological difference may have increased variability in content, increasing the threshold for thematic saturation. To clarify the reliability of the findings, future research would benefit from replication using a larger and more diverse sample.

In addition, all participants had previously completed manualised CBT for OCD. Consequently, their responses to the interview and questionnaires may have been influenced by their treatment experiences. For example, nearly half of participants reported conceptualising the OCD voice during psychotherapy and half of participants challenged the OCD voice during internal dialogues. Given that CBT involves psychoeducation and revaluating negative cognitive appraisals, participants may have become more attuned to OCD-related cognitions. Whether

individuals who have not received treatment perceive and respond to the OCD voice in the same way remains unknown. Further research should explore whether individuals with untreated OCD report an OCD voice.

The current study did not control for participants' experiences of verbal thoughts when assessing the OCD voice. Chiang and Purdon (2020) found that individuals with OCD can reliably distinguish between verbal thoughts and a distinct internal voice. Although the two constructs are not mutually exclusive (Alderson-Day and Fernyhough, 2017), future research may benefit from clearly operationalising verbal thoughts and the internal OCD voice, and directly asking participants whether they experience these as separate phenomena. Moreover, the study did not control for obsession content across episodes which may have influenced the null difference in tonal qualities of the OCD voice. Future research might compare O-C episodes in which the compulsion was performed or resisted in response to the same obsessional concern.

Building on these considerations, the study found moderate zero-order correlations between success dismissing and reasoning the OCD voice, and tone of the OCD voice. Future research may benefit from further exploring these relations. Additionally, there may be value in examining tone and authority of the responding voice in internal dialogues. Specifically, whether the degree of complementarity between the OCD voice and responding voice are associated with outcomes such as distress over obsessions and compulsions. Moreover, there is theoretical value in exploring the role of attachment in shaping the qualities of the OCD voice (Doron & Kyrios, 2005; Mikulincer et al., 2003).

Conclusion

Despite its limitations, this study contributes to the phenomenology of the OCD voice by clarifying its tonal qualities and the extent to which individuals with OCD engage with it in

internal dialogue. The findings from this study suggest that an authoritative OCD voice is a common aspect of the obsessional experience within the O-C cycle. Many individuals engaged in dynamic internal dialogues, often attempting to reason against the OCD voice. Importantly, perceiving the OCD voice as both benevolent and omnipotent was associated with more severe OCD symptoms. Together, these findings may help further specify existing psychological models of OCD and highlight the potential clinical value of addressing one's relationship with the OCD voice in treatment.

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Appendix A

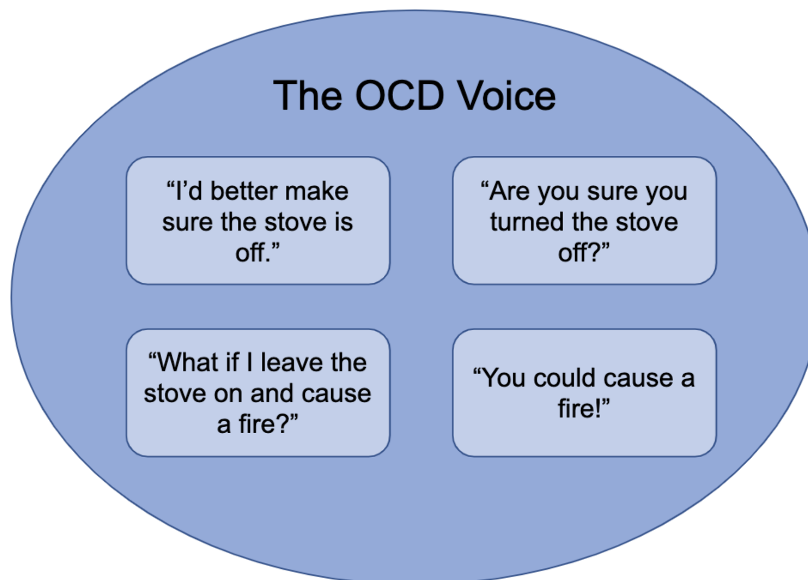
The Voice of OCD Interview

Condition 1: Obsession Led to Compulsion

Introduction:

I would like to talk with you about your experience with obsessions during obsessive/compulsive episodes. In obsessive compulsive disorder, obsessions can sound like a command such as "You'd better make sure the stove is off", a declarative statement, "You could cause a fire!", a propositional statement, "What if you leave the stove on and cause a fire?", or a question, "Are you sure you turned the stove off?". Obsessions can also be an image such as picturing a house on fire or an impulse like dropping a lit match on a newspaper. These images and impulses can also lead to commands, statements, or questions. In this portion we would like to consider all obsession-related commands, statements, questions, images, and impulses to be represented as the OCD voice.

This diagram shows how we can think about the OCD voice. This example illustrates obsessions related to causing a house fire, but the idea of the OCD voice can be applied to any type of obsession. The OCD voice can be in first person, saying "I'd better make sure the stove is off", in second person, saying "You'd better make sure the stove is off" or have no pronouns, saying "Make sure the stove is off".



The OCD voice is an internal voice that people hear in their mind, like they would when they are thinking to themself. The OCD voice only verbalizes directions, commands, statements, or questions related to obsessions.

Single question:

"What if I didn't check the stove properly?"

Dialogue:

OCD voice: "Make sure the stove is off."

Different part of the self: "I already checked."

OCD voice: "What if you didn't check the stove properly?"

People may experience the OCD voice as a single repeated command, statement, or question such as "What if I didn't check the stove properly?". They may also experience a dialogue or back and forth between the OCD voice and a different part of the self. A dialogue may look like this, "Make sure the stove is off", "I already checked", "What if you didn't check the stove properly?".

I would like you to think of a time in the past week when you experienced an obsession that led to a compulsion. Once you have a time in mind, we will go through some questions together so I can get a better understanding of how you experienced the obsession. I want to be sure that I get an accurate sense of your experience, so I will repeat my understanding back to you. Please correct me if I do not correctly describe your experience. Please feel free to ask questions at any point.

Let me know when you have a time in mind.

OCD Voice:

In the past week when you experienced the obsession that led to a compulsion:

1. What was the obsession about (e.g., contamination, checking, symmetry/ordering, causing harm)?

2. How did you experience the obsession (i.e., can you walk me through your experience)?
   - Prompt if participant is unsure how to answer
     - Some people experience obsessions as a command; statement; question; image; impulse; felt sense in your body

Now we will go through some ratings together.

3. When you experienced this obsession, the OCD voice may have had a certain tone to it. For example, the OCD voice may have seemed cold and hostile, or it may have seemed warm and agreeable. When you experienced the obsession, how would you rate the tone of the OCD voice on this scale from cold and hostile (0) to warm and agreeable (100)?

4. When you experienced this obsession, the OCD voice may have had a certain authority to it. For example, the OCD voice may have seemed dominant and domineering or it may have

seemed submissive and non-assertive. When you experienced the obsession, how would you rate the authority of the OCD voice on the scale from dominant and domineering (0) to submissive and non-assertive (100)?

5. How much did you believe the OCD voice to be representing the truth, from not at all true (0) to completely true (100)?

6. How hard did you try to dismiss the OCD voice, from not at all (0) to I tried my hardest (100)?

7. How successful were you in dismissing the OCD voice, from not at all successful (0) to completely successful (100)?

8. How hard did you try to reason with the OCD voice, from not at all (0) to I tried my hardest (100)?

9. How successful were you in reasoning with the OCD voice, from not at all successful (0) to completely successful (100)?

10. When did the OCD voice stop (i.e., when were you no longer experiencing and distressed over the command, statement, image, impulse)?

11. What was the compulsion that you did in response to the OCD voice (e.g., wash, check, mental ritual, ordering/counting, reassurance seeking)?

12. Did you repeat the compulsion again, immediately after doing it the first time [Y/N]?
    - *If yes:* How many times did you repeat the compulsion?

Condition 2: Obsession Did Not Lead to Compulsion

Introduction:

Now, I would like you to think of a time in the past week when you experienced an obsession that did not lead to a compulsion. Once you have a time in mind, we will go through some questions together so I can get a better understanding of how you experienced the obsession. Again, I want to be sure that I get an accurate sense of your experience, so I will repeat my understanding back to you. Please correct me if I do not correctly describe your experience. Please feel free to ask questions at any point.

Let me know when you have a time in mind.

OCD Voice Questions:

In the past week when you experienced an obsession that did not lead to a compulsion:

1. What was the obsession about (e.g., contamination, checking, symmetry/ordering, causing harm)?

2. How did you experience the obsession (i.e., can walk me through the obsession)?
   - Prompt if participant is unsure how to answer
     - Some people experience obsessions as a command; statement; question; image; impulse; felt sense in your body

Now we will go through some ratings together:

3. When you experienced this obsession, the OCD voice may have had a certain tone to it. For example, the OCD voice may have seemed cold and hostile, or it may have seemed warm and agreeable. When you experienced the obsession, how would you rate the tone of the OCD voice on this scale from cold and hostile (0) to warm and agreeable (100)?

4. When you experienced this obsession, the OCD voice may have had a certain authority to it. For example, the OCD voice may have seemed dominant and domineering or it may have seemed submissive and non-assertive. When you experienced the obsession, how would you rate the authority of the OCD voice on the scale from dominant and domineering (0) to submissive and non-assertive (100)?

5. How much did you believe the OCD voice to be representing the truth, from not at all true (0) to completely true (100)?

6. How hard did you try to dismiss the OCD voice, from not at all (0) to I tried my hardest (100)?

7. How successful were you in dismissing the OCD voice, from not at all successful (0) to completely successful (100)?

8. How hard did you try to reason with the OCD voice, from not at all (0) to I tried my hardest (100)?

9. How successful were you in reasoning with the OCD voice, from not at all successful (0) to completely successful (100)?

10. When did the OCD voice stop (i.e., when were you no longer experiencing and distressed over the command, statement, image, impulse)?

11. Do you have a sense as to why you did not do a compulsion in response to the OCD voice?

12. Have you thought about the obsessions you experience as a voice before? Has this come up in treatment?

13. Do you feel like the OCD voice accurately describes how you experience obsessions [Y/N]? Please explain.

Ending:
Do you feel that you have learned something new about yourself or your experience with OCD through talking with us?

Thank you for going through the questions with me. Now that we have gone through all the questions, is there anything else that we have not covered that you would like to share?

Appendix B

Dimensions of Obsessive-Compulsive Scale

This questionnaire asks you about four different types of concerns that you might or might not experience. For each type there is a description of the kinds of thoughts (sometimes called obsessions) and behaviours (sometimes called rituals or compulsions) that are typical of that particular concern, followed by five questions about your experiences with these thoughts and behaviours. Please read each description carefully and answer the questions for each category based on your experiences in the last week.

Category 1: Concerns about Germs and Contamination
Examples...

- Thoughts or feelings that you are contaminated because you came into contact with (or were nearby) a certain object or person.
- The feeling of being contaminated because you were in a certain place (such as a bathroom).
- Thoughts about germs, sickness, or the possibility of spreading contamination.
- Washing your hands, using hand sanitizer gels, showering, changing your clothes, or cleaning objects because of concerns about contamination.
- Following a certain routine (e.g., in the bathroom, getting dressed) because of contamination.
- Avoiding certain people, objects, or places because of contamination.

The next questions ask about your experiences with thoughts and behaviours related to contamination in the last week. Keep in mind that your experiences might be different than the examples listed above.

1. About how much time have you spent each day thinking about contamination and engaging in washing or cleaning behaviours because of contamination?

   0 None at all
   1 Less than 1 hour each day
   2 Between 1 and 3 hours each day
   3 Between 3 and 8 hours each day
   4 8 hours or more each day

2. To what extent have you avoided situations in order to prevent concerns with contamination or having to spend time washing, cleaning, or showering?

   0 None at all
   1 A little avoidance
   2 A moderate amount of avoidance
   3 A great deal of avoidance
   4 Extreme avoidance of nearly all things

3. If you had thoughts about contamination but could not wash, clean, or shower (or otherwise remove the contamination), how distressed or anxious did you become?

    0 Not at all distressed/anxious
    1 Mildly distressed/anxious
    2 Moderately distressed/anxious
    3 Severely distressed/anxious
    4 Extremely distressed/anxious

4. To what extent has your daily routine (work, school, self-care, social life) been disrupted by contamination concerns and excessive washing, showering, cleaning, or avoidance behaviours?

    0 No disruption at all.
    1 A little disruption, but I mostly function well.
    2 Many things are disrupted, but I can still manage.
    3 My life is disrupted in many ways and I have trouble managing.
    4 My life is completely disrupted and I cannot function at all.

5. How difficult is it for you to disregard thoughts about contamination and refrain from behaviours such as washing, showering, cleaning, and other decontamination routines when you try to do so?

    0 Not at all difficult
    1 A little difficult
    2 Moderately difficult
    3 Very difficult
    4 Extremely

Category 2: Concerns about being Responsible for Harm, Injury, or Bad Luck
Examples...

- A doubt that you might have made a mistake that could cause something awful or harmful to happen.
- The thought that a terrible accident, disaster, injury, or other bad luck might have occurred and you weren't careful enough to prevent it.
- The thought that you could prevent harm or bad luck by doing things in a certain way, counting to certain numbers, or by avoiding certain "bad" numbers or words.
- Thought of losing something important that you are unlikely to lose (e.g., wallet, identify theft, papers).
- Checking things such as locks, switches, your wallet, etc. more often than is necessary.
- Repeatedly asking or checking for reassurance that something bad did not (or will not) happen.
- Mentally reviewing past events to make sure you didn't do anything wrong.
- The need to follow a special routine because it will prevent harm or disasters from occurring.

- The need to count to certain numbers, or avoid certain bad numbers, due to the fear of harm.

The next questions ask about your experiences with thoughts and behaviours related to harm and disasters in the last week. Keep in mind that your experiences might be slightly different than the examples listed above.

6. About how much time have you spent each day thinking about the possibility of harm or disasters and engaging in checking or efforts to get reassurance that such things do not (or did not) occur?

   0 None at all
   1 Less than 1 hour each day
   2 Between 1 and 3 hours each day
   3 Between 3 and 8 hours each day
   4 8 hours or more each day

7. To what extent have you avoided situations so that you did not have to check for danger or worry about possible harm or disasters?

   0 None at all
   1 A little avoidance
   2 A moderate amount of avoidance
   3 A great deal of avoidance
   4 Extreme avoidance of nearly all things

8. When you think about the possibility of harm or disasters, or if you cannot check or get reassurance about these things, how distressed or anxious did you become?

   0 Not at all distressed/anxious
   1 Mildly distressed/anxious
   2 Moderately distressed/anxious
   3 Severely distressed/anxious
   4 Extremely distressed/anxious

9. To what extent has your daily routine (work, school, self-care, social life) been disrupted by thoughts about harm or disasters and excessive checking or asking for reassurance?

   0 No disruption at all.
   1 A little disruption, but I mostly function well.
   2 Many things are disrupted, but I can still manage.
   3 My life is disrupted in many ways and I have trouble managing.
   4 My life is completely disrupted and I cannot function at all.

10. How difficult is it for you to disregard thoughts about possible harm or disasters and refrain from checking or reassurance-seeking behaviours when you try to do so?

0 Not at all difficult
1 A little difficult
2 Moderately difficult
3 Very difficult
4 Extremely

Category 3: Unacceptable Thoughts
Examples...
Unpleasant thoughts about sex, immorality, or violence that come to mind against your will.
Thoughts about doing awful, improper, or embarrassing things that you don't really want to do.
Repeating an action or following a special routine because of a bad thought.
Mentally performing an action or saying prayers to get rid of an unwanted or unpleasant thought.
Avoidance of certain people, places, situations or other triggers of unwanted or unpleasant thoughts.

The next questions ask about your experiences with unwanted thoughts that come to mind against your will and behaviours designed to deal with these kinds of thoughts in the last week. Keep in mind that your experiences might be slightly different than the examples listed above.

11. About how much time have you spent each day with unwanted unpleasant thoughts and with behavioural or mental actions to deal with them?

0 None at all
1 Less than 1 hour each day
2 Between 1 and 3 hours each day
3 Between 3 and 8 hours each day
4 8 hours or more each day

12. To what extent have you been avoiding situations, places, objects and other reminders (e.g., numbers, people) that trigger unwanted or unpleasant thoughts?

0 None at all
1 A little avoidance
2 A moderate amount of avoidance
3 A great deal of avoidance
4 Extreme avoidance of nearly all things

13. When unwanted or unpleasant thoughts come to mind against your will how distressed or anxious did you become?

0 Not at all distressed/anxious
1 Mildly distressed/anxious
2 Moderately distressed/anxious
3 Severely distressed/anxious

4 Extremely distressed/anxious

14. To what extent has your daily routine (work, school, self-care, social life) been disrupted by unwanted and unpleasant thoughts and efforts to avoid or deal with such thoughts?

    0 No disruption at all.
    1 A little disruption, but I mostly function well.
    2 Many things are disrupted, but I can still manage.
    3 My life is disrupted in many ways and I have trouble managing.
    4 My life is completely disrupted and I cannot function at all.

15. How difficult is it for you to disregard unwanted or unpleasant thoughts and refrain from using behavioral or mental acts to deal with them when you try to do so?

    0 Not at all difficult
    1 A little difficult
    2 Moderately difficult
    3 Very difficult
    4 Extremely

Category 4: Concerns about Symmetry, Completeness, and the Need for Things to be "Just Right"

Examples...

- The need for symmetry, evenness, balance, or exactness.
- Feelings that something isn't "just right."
- Repeating a routine action until it feels "just right" or "balanced."
- Counting senseless things (e.g., ceiling tiles, words in a sentence).
- Unnecessarily arranging things in "order."
- Having to say something over and over in the same way until it feels "just right.".

The next questions ask about your experiences with feelings that something is not "just right" and behaviours designed to achieve order, symmetry, or balance in the last week. Keep in mind that your experiences might be slightly different than the examples listed above.

16. About how much time have you spent each day with unwanted thoughts about symmetry, order, or balance and with behaviours intended to achieve symmetry, order or balance?

    0 None at all
    1 Less than 1 hour each day
    2 Between 1 and 3 hours each day
    3 Between 3 and 8 hours each day
    4 8 hours or more each day

17. To what extent have you been avoiding situations, places or objects associated with feelings that something is not symmetrical or "just right?"?

0 None at all
1 A little avoidance
2 A moderate amount of avoidance
3 A great deal of avoidance
4 Extreme avoidance of nearly all things

18. When you have the feeling of something being "not just right," how distressed or anxious did you become?

0 Not at all distressed/anxious
1 Mildly distressed/anxious
2 Moderately distressed/anxious
3 Severely distressed/anxious
4 Extremely distressed/anxious

19. To what extent has your daily routine (work, school, self-care, social life) been disrupted by the feeling of things being "not just right," and efforts to put things in order or make them feel right?

0 No disruption at all.
1 A little disruption, but I mostly function well.
2 Many things are disrupted, but I can still manage.
3 My life is disrupted in many ways and I have trouble managing.
4 My life is completely disrupted and I cannot function at all.

20. How difficult is it for you to disregard thoughts about the lack of symmetry and order, and refrain from urges to arrange things in order or repeat certain behaviors when you try to do so?

0 Not at all difficult
1 A little difficult
2 Moderately difficult
3 Very difficult
4 Extremely

Scoring Guidelines for the DOCS
Each question has a four-point response range, from 0–4.

The questionnaire has four scales measuring obsessional domain:

- Germs and Contamination (items 1-5): range 0–20
- Responsibility for Harm (items 6-10): range 0–20
- Unacceptable Thoughts (items 11-15): range 0–20
- Symmetry and Order (items 16-20): range 0–20

The four scales can either be totalled to give one overall score for the DOCS (range 0–80), or looked at separately, or both.

Appendix C

The Beliefs About Voice Questionnaire-Revised

Please read each statement and select the option that best describes the way you have been feeling in relation to the OCD voice in the last week.

1. The OCD voice is punishing me for something I have done
2. The OCD voice helps me
3. The OCD voice is very powerful
4. The OCD voice is persecuting me for no good reason
5. The OCD voice protects me
6. The OCD voice seems to know everything about me
7. The OCD voice is evil
8. The OCD voice helps keep me sane
9. The OCD voice makes me do things I really don't want to do
10. The OCD voice harms me
11. The OCD voice has special knowledge or abilities
12. I cannot control the OCD voice
13. The OCD voice wants me to do bad things
14. The OCD voice helps me to achieve my goals
15. Myself and others will be harmed if I disobey or resist the OCD voice
16. The OCD voice is corrupting or destroying me
17. I am grateful for the OCD voice
18. The OCD voice rules my life
19. The OCD voice reassures me
20. The OCD voice frightens me
21. The OCD voices makes me happy
22. The OCD voice makes me feel down
23. The OCD voice makes me feel angry
24. The OCD voice makes me feel calm
25. The OCD voice makes me feel anxious
26. The OCD voice makes me feel confident

In the last week when I experienced the OCD voice, usually...

27. I tell it to leave me alone
28. I try to take my mind off it
29. I try to stop it
30. I do things to prevent it
31. I am reluctant to obey it
32. I obey to it because I want to
33. I willingly follow what the OCD voice tells me to do
34. I seek the advice of the OCD voice

Scoring Guidelines for BAVQ-R

All items have a four-point response range, Disagree Strongly (score 0), Disagree Slightly (score 1), Unsure (score 2), Agree slightly (score 3) and Agree strongly (score 4).

The questionnaire has three scales measuring meaning given to the voice:

- Malevolence (items 1, 4, 7, 10, 13, 16): range 0–24
- Benevolence (items 2, 5, 8, 11, 14, 17): range 0–24
- Omnipotence (items 3, 6, 9, 12, 15, 18): range 0–24

The questionnaire also measures Resistance and Engagement, two ways of relating to voices. Resistance and Engagement both contain emotional and behavioural items.

Resistance

- Emotion (items 20, 22, 23, 25): range 0–16
- Behaviour (items 27, 28, 29, 30, 31): range 0–20

Engagement

- Emotion (items 19, 21, 24, 26): range 0–16
- Behaviour (items 32, 33, 34): range 0–12

Emotion and behaviour scores can either be totalled to give one overall score for Resistance (range 0–36) and Engagement (range 0–28), or looked at separately, or both.

Appendix D

Voice Power Differential Scale

Please select the option that best describes the way you have been feeling in relation to the OCD voice in the last week.

1 I am much more powerful than the OCD voice
2 I am somewhat more powerful than the OCD voice
3 We have about the same amount of power as each other
4 The OCD voice is somewhat more powerful than me
5 The OCD voice is much more powerful than me

1 I am much stronger than the OCD voice
2 I am somewhat stronger than the OCD voice
3 We are as strong as each other
4 The OCD voice is somewhat stronger than me
5 The OCD voice is much stronger than me

1 I am much more confident than the OCD voice
2 I am somewhat more confident than the OCD voice
3 We are as confident as each other
4 The OCD voice is somewhat more confident than me
5 The OCD voice is much more confident than me

5 I respect the OCD voice much more than it respects me
4 I respect the OCD voice somewhat more than it respects me
3 We respect each other about the same
2 The OCD voice respects me somewhat more than I respect the OCD voice
1 The OCD voice respects me much more than I respect the OCD voice

1 I am much more able to harm the OCD voice than it is able to harm me
2 I am somewhat more able to harm the OCD voice than it is able to harm me
3 We are equally able to harm each other
4 The OCD voice is somewhat more able to harm me than I am able to harm it
5 The OCD voice is much more able to harm me than I am able to harm it

1 I am much more superior to the OCD voice
2 I am somewhat superior to the OCD voice
3 We are equal to each other
4 The OCD voice is somewhat superior to me
5 The OCD voice is much more superior to me

1 I am much more knowledgeable than the OCD voice
2 I am somewhat more knowledgeable than the OCD voice

3 We have about the same amount of knowledge as each other
4 The OCD voice is somewhat more knowledgeable than me
5 The OCD voice is much more knowledgeable than me

Scoring Guidelines for VPDS

Each set of items has a five-point response range from 1-5. Set-level scores are summed to create a total score for the VPDS.

Appendix E

Attachment Style Questionnaire

Show how much you agree with each of the following items by rating them on this scale: 1 = totally disagree; 2 = strongly disagree; 3 = slightly disagree; 4 = slightly agree; 5 = strongly agree; or 6 = totally agree.

1. Overall, I am a worthwhile person (confidence)
2. I am easier to get to know than most people (confidence)
3. I feel confident that other people will be there for me when I need them (confidence)
4. I prefer to depend on myself rather than other people (discomfort)
5. I prefer to keep to myself (discomfort)
6. To ask for help is to admit that you're a failure (R as S)
7. People's worth should be judged by what they achieve (R as S)
8. Achieving things is more important than building relationships (R as S)
9. Doing your best is more important than getting on with others (R as S)
10. If you've got a job to do, you should do it no matter who gets hurt (R as S)
11. It's important to me that others like me (N for A)
12. It's important to me to avoid doing things that others won't like (N for A)
13. I find it hard to make a decision unless I know what other people think (N for A)
14. My relationships with others are generally superficial (R as S)
15. Sometimes I think I am no good at all (N for A)
16. I find it hard to trust other people (discomfort)
17. I find it difficult to depend on others (discomfort)
18. I find that others are reluctant to get as close as I would like (preoccupation)
19. I find it relatively easy to get close to other people (confidence)
20. I find it easy to trust others (R) (discomfort)
21. I feel comfortable depending on other people (R) (discomfort)
22. I worry that others won't care about me as much as I care about them (preoccupation)
23. I worry about people getting too close (discomfort)
24. I worry that I won't measure up to other people (N for A)
25. I have mixed feelings about being close to others (discomfort)
26. While I want to get close to others, I feel uneasy about (discomfort)
27. I wonder why people would want to be involved with me (N for A)
28. It's very important to me to have a close relationship (preoccupation)
29. I worry a lot about my relationships (preoccupation)
30. I wonder how I would cope without someone to love me (preoccupation)
31. I feel confident about relating to others (confidence)
32. I often feel left out or alone (preoccupation)
33. I often worry that I do not really fit in with other people (R) (confidence)
34. Other people have their own problems, so I don't bother them with mine (discomfort)
35. When I talk over my problems with others, I generally feel ashamed or foolish (N for A)
36. I am too busy with other activities to put much time into relationships (R as S)
37. If something is bothering me others are generally aware and concerned (confidence)
38. I am confident that other people will like and respect me (confidence)

39. I get frustrated when others are not available when I need them (preoccupation)
40. Other people often disappoint me (preoccupation)

Scoring Guidelines for the ASQ

The questionnaire has five scales measuring the five facets of attachment style:

- Confidence: (items 1, 2, 3, 19, 31, 33, 37, 38): range 8–48
- Preoccupation with Relationships: (items 18, 22, 28, 29, 30, 32, 39, 40): range 8–48
- Need for Approval: (items 11, 12, 13, 15, 24, 27, 35): range 7–42
- Relationships as Secondary: (items 6, 7, 8, 9, 10, 14, 36): range 7–42
- Discomfort with Closeness: (items 4, 5, 16, 17, 20, 21, 23, 25, 26, 34): range 10–60

Preoccupation with Relationships and Need for Approval scores can either be totalled to give one overall score for Anxious Attachment (range 15-90), or looked at separately, or both. Relationships as Secondary and Discomfort with Closeness can either be totalled to give one overall score for Avoidant Attachment (range 17–102), or looked at separately, or both.

Note. Items marked (R) are reversed scored. R as S, relationships as secondary; N for A, need for approval; Discomfort, discomfort with closeness; Preoccupation, preoccupation with relationships.

Appendix F

Qualitative Coding Framework for The Voice of OCD Interview

Code	Description	Interrater Reliability
Obsessional Experience	The form(s) in which the obsession is experienced	
Felt sense (D)	Negative internal feeling that something is not right	0.97
Imagined sounds (D)	Auditory experience created in the mind related to the obsession	1.00
Internal dialogue (D)	Exchange of verbal thoughts between OCD voice and responding voice or a descriptor representing the dialogue (e.g., fight, conversation, argument)	1.00
Internal voice (D)	Verbal thought related to the obsession	.99
Mental imagery (D)	Visual scene experienced in the mind related to the obsession	1.00
Sensory phenomena (D)	Physical sensation on or in the body	1.00
OCD Voice	Verbalisations about the obsession	
Accusation (I)	Claim that one is or has done something that they fear	1.00
Consequence of non-action (I)	Scenario that will occur if no preventative action is taken	1.00
Demand for action (I)	Insistence for immediate engagement in compulsion	1.00
Doubt (D)	Question or statement that implies certainty has not been reached	1.00
Ensuring certainty (D)	Statement containing an unachievable goal, or implicit or explicit prompt to repeat compulsion	1.00

Fear as reality (I)	Statement indicating that what is feared is presently occurring or has already occurred	1.00
Remembering past evidence (I)	Recollection of information from the past that supports current obsession	1.00
Repugnant thought (D)	Verbal thought involving content that is objectively immoral, such as harm to others or sexual deviance	1.00
Situationally driven fear as reality versus consequence of non-action (I)	OCD voice form depends on obsession content	1.00
Suggesting action (I)	Statement that suggests the compulsion should be performed	1.00
OCD Voice Characteristics	Qualities of the OCD voice including tone, intensity, and communicative style	
All-knowing (D)	All-encompassing presence	1.00
Anxious (D)	Worry, fear, or panic	1.00
Cold (D)	Lacks empathy or warmth	1.00
Demanding (D)	Command for action with a sense of urgency and inflexibility	1.00
Dominant (D)	Control and overriding one’s thoughts or agency	1.00
Hostile (D)	Aggressive and threatening	1.00
Neutral (D)	Objective and matter of fact	1.00
Persuasive (I)	Attempt to convince or reason in favor of performing the compulsion	1.00
Situationally driven warm versus cold (I)	Voice tone changes depending on obsession content	1.00
Taunting (I)	Direct mockery or provocation related to the feared outcome	1.00

OCD Voice Pronouns	Pronoun use in the dialogue between the OCD voice and self	
First person (I)	Verbal thought from OCD voice using "I" pronoun	1.00
Second person (I)	Verbal thought from OCD voice using "you" and "we" pronouns	1.00
OCD voice speaks "you"; self speaks "I" (I)	Dialogue where OCD voice uses "you" pronoun and the self uses "I" pronoun	1.00
Responses to the OCD Voice	Verbal thoughts and verbalization of actions taken in response to the OCD voice	
Abstinence violation (I)	Belief that even minimal ritual engagement invalidates response prevention	1.00
Agreeing with the OCD voice (I)	Content of verbal thought that is in line with that of the OCD voice	1.00
Asking for information or Permission (I)	Question from self that seeks information or permission from OCD voice	1.00
Challenging the OCD voice (D)	Question or statement that contradicts the OCD voice's reasoning	0.98
Criticism related to Compulsion (I)	Statement reflecting negative judgment from the self or others about one's compulsive behaviour	1.00
Evidence against obsession (D)	Reference to specific information used to invalidate the OCD voice's reasoning	1.00
Implications of compliance with OCD voice (I)	Reflection of what will occur if the OCD voice is obeyed	1.00
Negative emotions (I)	Reference to the experience of unpleasant emotions such as anxiety, guilt, doubt, and sadness	1.00
Opposition (I)	Ignoring the OCD voice, responding with an oppositional or argumentative comment, or a behaviour that directly opposes the OCD voice	0.98

Performing the compulsion (D)	Actively engaging in a compulsion that was implied or explicitly instructed by the OCD voice	1.00
Reference to ritual (D)	Reference to a compulsion that was engaged in moments earlier or that will be engaged in shortly	1.00
Self-compassion (D)	Verbal thought expressing understanding toward one's struggle with OCD	1.00
Self-doubt (D)	A verbal statement or felt sense related to uncertainty about one's own thoughts, feelings, or intentions	1.00
Self-reassurance (D)	Verbal thoughts that reassure oneself that the feared outcome will not occur or is unlikely to occur	0.98
Setting Limits (I)	Verbal thought imposing a limit on degree of compliance with OCD voice, such as how many times a compulsion is performed	1.00
Situationally driven ability to challenge (I)	Ability to challenge OCD voice depends on the obsession content	1.00
Relating to the OCD Voice	Relationship between the OCD voice and the self	
Conflicting beliefs (I)	Two or more beliefs that directly oppose one other	0.98
Convergent beliefs (I)	Two or more beliefs that are in line with each other	1.00
Difficulty differentiating OCD from self (I)	The self and OCD voice have similar beliefs or values	1.00
Dominant to other thoughts (I)	Instances when OCD voice is attended to at expense of opposing thoughts or thoughts unrelated to obsession	1.00
My voice (I)	Recognition of OCD voice as being one's own internal voice	1.00

OCD voice as if separate from self (I)	Reference to the OCD voice as being in some way separate from the self	1.00
Disengaging the OCD Voice	Internal or external process associated with the subsidence of the OCD voice within a single O-C episode	
Accepting uncertainty and Imperfection (D)	Conclusion made about inability to reach absolute certainty and perceived perfection	1.00
Compliance with the OCD Voice (I)	Mental or physical act performed that was implied or explicitly instructed by OCD voice	1.00
Dismiss as not relevant for further processing (I)	Ignoring the OCD voice and acting in accordance with one's own desires	0.98
Distraction from obsession (D)	Mental or physical act engaged in with the purpose of distancing oneself from the obsession	1.00
Feared outcome did not occur (I)	Conclusion that feared outcome was avoided after a period of time has passed	1.00
Identify thought as OCD (I)	Mental act of labeling a thought as OCD	1.00
Just right feeling (D)	Internal felt sense of 'rightness'	1.00
Non-compliance with OCD Voice (I)	Mental or physical act performed that goes against what was implied or explicitly instructed by OCD voice	1.00
Other priorities (I)	Desire to engage in an activity outweighs performing a compulsion	1.00
Reference to personal values (I)	Mental act of referencing one's own values and how the compulsion goes against the values	1.00
Threat removed (D)	The subject of the obsession was removed and is no longer considered a threat	1.00
Emergence of the OCD Voice	The context in which the OCD voice first emerged or evolved, including how initial or new insights arose	

Interview with researchers (I)	Reflection of information shared with researchers during the interview	1.00
Never considered OCD voice (I)	Never examined internal OCD experience prior to interview	1.00
New insights about OCD Voice (I)	Information that can be incorporated into an understanding of the OCD voice	1.00
Psychotherapy (I)	CBT group, individual CBT, or other forms of individual psychotherapy	1.00
Self-discovered (I)	Introspection about one's internal experience	1.00
Social media (I)	Awareness of OCD voice through online posts	1.00

Note. Inductive codes represented by "I"; deductive codes represented by "D".

Appendix G

Table 2.

Frequency Counts and Codes for Participants' Obsessional Experience

Participant ID	Number of Obsessional Experiences	Obsessional Experience Code
P01	3	Felt sense; internal voice
P02	2	Internal dialogue; internal voice
P03	3	Internal dialogue; internal voice; mental imagery
P04	3	Internal dialogue; internal voice; mental imagery
P05	2	Internal dialogue; internal voice
P06	2	Internal dialogue; internal voice
P07	3	Felt sense; internal dialogue; internal voice
P08	3	Felt sense; internal dialogue; internal voice
P09	4	Felt sense; internal dialogue; internal voice; sensory phenomena
P10	2	Felt sense; internal voice
P11	3	Internal dialogue; internal voice; sensory phenomena
P12	5	Felt sense; imagined sounds; internal dialogue; internal voice; mental imagery
P13	1	Internal voice
P14	5	Felt sense; imagined sounds; internal dialogue; internal voice; mental imagery

P15	2	Internal dialogue; internal voice
P16	3	Felt sense; internal dialogue; internal voice
P17	2	Internal dialogue; internal voice
P19	4	Internal dialogue; internal voice; mental imagery; sensory phenomena
P20	2	Internal dialogue; internal voice
P21	3	Internal dialogue; internal voice; mental imagery

Note. Participants reported an average of 2.85 (*SD* = 1.04) obsessional experiences across the two O-C episodes.

Appendix H

Preliminary Analysis for Quantitative Data

Table 12.

Descriptive Statistics and Reliability Coefficients for Questionnaire Variables

	M	*SD*	Skew	Kurtosis	Reliability α
DOCS Total	27.35	14.25	.49	-.65	.91
Malevolence	10.60	4.62	.19	1.01	.58
Benevolence	6.80	5.88	.74	-.55	.86
Omnipotence	14.90	5.74	-.52	-.57	.81
Power	21.75	7.12	-.17	-1.22	.88
Overall Power	0.00	1.91	-.44	-.90	.92
Engagement	5.40	4.21	.37	-.87	.69
Resistance	25.85	3.88	-.58	-1.04	.49
Need for Approval	28.80	6.88	-.48	.98	.84
Preoccupation with relationships	32.35	5.33	-.67	.91	.55
Relationships as Secondary	16.65	5.02	1.20	4.22	.74
Discomfort with Closeness	38.20	10.13	.38	.19	.90
Anxious Attachment	61.15	11.40	-.78	1.85	.91

Avoidant Attachment	54.85	14.32	.58	1.47	.84

Note. N = 20 for all variables. Skewness SE = 0.51; kurtosis SE = 0.99. DOCS total was measured on a 0-80 scale. Malevolence, benevolence, and omnipotence: 0-24; resistance: 0-36; engagement: 0-28; power: 7–35; need for approval and relationships as secondary: 7-42; discomfort with closeness: 10-60; preoccupation with relationships: 8-48; anxious attachment: 15-90, avoidant attachment: 17-102.

Table 13.

Bivariate Correlations Between Questionnaire Variables

		2	3	4	5	6	7	8	9	10	11	12	13	14
1	DOCS Total	.05	**.73****	**.71****	**.51***	**.63****	**.64****	.05	.25	-.01	.40	-.42	.14	.44
2	Malevolence		.05	.26	**.51***	.40	.14	-.06	**.55***	.44	.17	.12	**.54***	.15
3	Benevolence			**.58****	.37	**.50***	**.81****	-.19	**.27**	.08	.37	.30	.20	.34
4	Omnipotence				**.83****	**.96****	**.67****	-.06	.42	.17	.20	.13	.33	.16
5	Power					**.96****	**.53***	-.26	.38	.14	.13	.05	.29	.09
6	Overall Power						**.62****	-.17	.42	.16	.18	.10	.33	.13
7	Engagement							-.32	.44	.11	.31	.39	.32	.36
8	Resistance								-.30	-.24	-.12	.03	-.29	-.02
9	Need For Approval									**.74****	**.50***	**.46***	**.95****	**.50***
10	Preoccupation with Relationships										.15	.19	**.91****	.18

11	Relationships as Secondary	**.76****	.37	**.90****
12	Discomfort with Closeness		.36	**.97****
13	Anxious Attachment			.39
14	Avoidant Attachment			

Note. ** Correlation significant at the .01 level (two tailed test). *Correlation significant at the .05 level (two tailed test).

Table 15.

Bivariate Correlations Between Interview Ratings for the Compulsion Episode

		2	3	4	5	6	7
1	C Beliefs	-.41	-.43	-.26	.04	.11	-.06
2	C Dismiss Effort		**.62****	**.52****	.09	-.16	.02
3	C Dismiss Success			.41	.43	-.03	.19
4	C Reason Effort				.07	.06	.16
5	C Reason Success					**.63****	.32
6	C Tone						**.66****
7	C Authority						

Note. ** Correlation significant at the .01 level (two tailed test).

Table 16.

Bivariate Correlations Between Interview Ratings for the No Compulsion Episode

		2	3	4	5	6	7
1	NC Beliefs	-.18	-.19	**-.46***	.14	.23	.23
2	NC Dismiss Effort		.14	-.02	.00	-.28	-.10
3	NC Dismiss Success			.06	**.57****	**.58****	**.54***
4	NC Reason Effort				.32	-.11	-.00
5	NC Reason Success					**.47***	**.51***
6	NC Tone						**.63****
7	NC Authority						

Note. ** Correlation significant at the .01 level (two tailed test). *Correlation significant at the .05 level (two tailed test).

Table 17.

Bivariate Correlations Between Interview Ratings Across O-C Episode Type

	C Beliefs	C Dismiss Effort	C Dismiss Success	C Reason Effort	C Reason Success	C Tone	C Authority
NC Beliefs	.25	.22	-.17	-.43	-.42	-.02	.13
NC Dismiss Effort	-.27	.05	.05	**.61****	.31	-.34	-.24
NC Dismiss Success	-.25	-.15	.22	.34	.13	-.14	-.22
NC Reason Effort	-.08	-.01	-.15	**.54***	-.01	-.23	-.07

NC Reason Success	**-.50**[*]	-.19	-.03	.15	-.35	-.32	-.18
NC Tone	**-.54**[*]	-.11	-.00	.24	-.26	-.06	.27
NC Authority	-.28	-.14	.19	.40	.00	.06	.31

Note. C = compulsion episode; NC = no compulsion episode. ** Correlation significant at the .01 level (two tailed test). [*]Correlation significant at the .05 level (two tailed test).

Appendix I

Preliminary Multiple Regression Models

Table 18.

Regression Coefficients for Malevolence, Benevolence, Omnipotence, and Power Predicting OCD Symptom Severity

	B	***SE***	***β***	***t***	***p***	**R^2**	**adj. R^2**	***F***
Malevolence	-.26	.57	-.08	-.45	.659	.66	.57	$F(4, 15) = 7.41, p < .01$
Benevolence	1.14	.46	.47	2.48	.025			
Omnipotence	1.15	.82	.46	1.40	.181			
Power	-.02	.65	-.01	-.03	.973			

Note. B = Raw regression coefficient; *SE* = Standard error of *B*; *β* = Standardized coefficient.

Table 19.

Regression Coefficients for Benevolence and Overall Power Predicting OCD Symptom Severity

	B	***SE***	***β***	***t***	***p***	**R^2**	**adj. R^2**	***F***
Benevolence	1.35	.41	.56	3.28	.004	.63	.59	$F(2, 17) = 14.72, p < .001$
Overall Power	2.67	1.26	.36	2.12	.049			

Note. B = Raw regression coefficient; *SE* = Standard error of *B*; *β* = Standardized coefficient.

Omnipotence and power were standardised and summed into the composite, overall power.