Reassuringly Calm? Self-reported patterns of responses to reassurance seeking in Obsessive Compulsive Disorder

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Running head: Reassurance Seeking in OCD

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Abstract

Background and Objectives: The perception of threat and associated feelings of anxiety typically prompt people to seek safety; reassurance seeking is an interpersonal strategy almost universally used to reduce the immediate perception of risk. Excessive Reassurance Seeking (ERS) is considered to be particularly prominent and unequivocally counter-productive in people suffering from anxiety disorders in general and OCD in particular, producing short term relief but a longer term return and worsening of the original anxiety. We evaluated the extent and specificity of the effects of ERS in OCD and mechanisms involved in both anxiety relief and the hypothesized later return of anxiety.

Method: Self rated effects of reassurance seeking were investigated in 153 individuals with OCD, 50 with panic disorder, and 52 healthy controls, evaluating reactions to the provision and non-provision of reassurance.

Results: Reassurance is associated with short term relief then longer term return of both discomfort and the urge to seek further reassurance in both anxious groups; healthy controls do not experience significant resurgence. Greater return of anxiety and urge to seek more reassurance were associated with higher levels of overall reassurance seeking.

Limitations: The findings were based on retrospective self-report of naturally occurring episodes of ERS; prospective studies and induced behaviours are now needed.

Conclusions: Not only is reassurance a quick fix for people experiencing OCD, but in the absence of treatment the only fix! The findings explain why reassurance seeking continues despite advice that it will worsen anxiety problems. Such advice is potentially harmful to patients and their loved ones.

246 words

Key words: Obsessive-Compulsive Disorder, Cognitive Theory of OCD, Reassurance Seeking, Excessive Reassurance Seeking, Reassurance Seeking Questionnaire (ReSQ)

In a situation in which a person feels under threat, seeking reassurance from a trusted person is usually regarded as an appropriate and normal personal and interpersonal reaction to their feelings of anxiety. In this context, most people would regard the seeking and provision of such reassurance as helpful and liable to reduce or even eliminate the experience of anxiety. Reassurance could thus reasonably be described as the commonest form of informally sought and delivered psychological help offered by both health professionals and lay people (Warwick and Salkovskis, 1985). However, it is also commonly believed by clinicians working with mental health problems that those who suffer from anxiety disorders often tend to seek reassurance excessively, and that for them to do so is regarded as unhelpful and should therefore be stopped. Patients are often advised to desist from seeking reassurance, and both carers and professionals tend to be encouraged to refuse to provide it. It would therefore seem important to identify why something which is regarded as prescribed for the ordinary person as a way of dealing experiencing moderate levels of anxiety and perceived threat should be proscribed for those with particularly high levels of perceived threat and anxiety! The present study therefore seeks to clarify the mechanisms which may be involved in reassurance seeking and provision in people suffering from Obsessive-Compulsive Disorder (OCD), and in particular to evaluate the extent to which the response to seeking reassurance matches that seen in obsessional checking.

OCD was chosen because it has long been recognized that, amongst the anxiety disorders, reassurance seeking is especially prominent in that problem, and it has been suggested that it may in fact be an extremely important factor in the maintenance of that disorder where it occurs (Salkovskis, 1985). Repeated requests for reassurance are particularly common among individuals with checking compulsions, but such reassurance seeking also seems to occur across the full range of OCD presentations. For example, individuals with OCD may ask others whether something is really clean, whether they have carried out an action properly, whether they are truly religious/heterosexual and so on. By definition, other people are involved in the processes of reassurance seeking and provision, although sometimes patients with OCD appear to reassure themselves and may consult impersonal sources such as the internet to obtain reassurance.

Most typically and obviously, when reassurance in sought in the context of OCD trusted persons are asked questions which are focused on some aspect of the sufferer's fears and/or their efforts to dispel them (e.g. "Do you think I'm still contaminated?"; "Do you think I have washed enough?"). Sometimes the reassurance seeking may also take the form of asking someone to support or assist the sufferer's rituals (e.g. "Please watch me while I check the door so I know that you are sure and can tell me that I did it properly"), followed by requests to feedback ("Was it OK?"). There are a range of less obvious and subtle reactions which appear to serve as reassurance seeking, such as mentioning particular fears without an obvious expectation of a response (because not responding to a "mentioned" fear implies reassurance), simply making sure that the other person sees them carrying out an action without discussion and so on. In a previous study (Kobori and Salkovskis, 2013), we were able to show that as expected, reassurance seeking is a very commonly reported reaction to anxiety and perceived threat in a range of anxiety disorders, with patients with OCD mainly differing in terms of they way they employ "self-reassurance" and how carefully they monitor and behave when they seek and receive reassurance. These findings were also consistent with those obtained in a qualitative study in which patients with OCD were interviewed about reassurance seeking and their reactions to it (Kobori, Salkovskis, Read, Lounes, and Wong, 2012). Thematic analysis was used in order to examine the way individuals with OCD describe their attempts to seek reassurance and the perceived consequences of reassurance seeking. From ten interviews, four overarching themes were identified. Two concerned reassurance itself (Interrogating Feelings to Achieve a sense of Certainty, Ceaseless and Careful Effort) and two were related to the perceived impact on others (Reluctance to Seek Reassurance, and Interpersonal Concern). The reduction of uncertainty regarding threat is thus a key perceived motivation to seek reassurance in OCD, and sufferers constantly strive to ensure the validity of reassurance they obtain whilst at the same time they attempt to minimise the negative impact of reassurance seeking and the possibility of linked interpersonal problems (Kobori et al., 2012).

Although the fact that reassurance seeking occurs as a repetitive behavior in the context of OCD and other anxiety problems and superficially resembles it, this does not necessarily mean that it functions as a safety seeking behavior similar to obsessional checking. Notably, previous research on the function of checking and related obsessional behaviours has looked at the short and long term response to conducting such behaviours. For example, the classic experiments on spontaneous decay of compulsive urges in OCD demonstrated that provoking stimulus led to an upsurge of both urge and discomfort, and the completion of the ritual reduced them dramatically (Rachman, de Silva, and Roper, 1976; de Silva, Menzies, and Shafran, 2003).

There is of course also a strong link between the seeking of reassurance and its provision; the present study also seeks to disentangle these components. The salient difference between obsessional rituals such as checking and washing as opposed to reassurance lies in the interpersonal aspect intrinsic to reassurance. Someone with OCD can (and often will) check for hours on end, repeating the same actions and reviewing usually identical results. Due to its interpersonal nature, the person suffering from OCD cannot usually rely on similar consistency when seeking reassurance, although this may be sought. Asking for reassurance may fail to elicit a 'desirable' response from other people; sometimes, there may even be no response at all. The person from whom reassurance is sought may provide ambiguous answers (e.g., 'Probably yes, but I'm not sure…'), they may indicate that it is unproductive to answer (e.g., 'The therapist told me not to answer you, sorry'), and they may even become angry in refusal (e.g., 'How many times do I have to tell you this! I'm fed up!)'. When the person suffering from OCD does manage to obtain high levels of consistency (i.e. rigidity in the verbal and/or non-verbal response from the other person) this typically appears to be at the cost of the other person's participation in reassurance becoming highly aversive to them, creating other secondary problems.

From a theoretical perspective, we therefore propose that reassurance seeking represents a special case of obsessional checking; special and particularly potent because it involves seeking

opinion of others as a way of reducing (by sharing) the person's perception of responsibility for harm. Clearly it would be helpful to conduct experimental studies similar to those of Rachman et al. (1976) and de Silva et al. (2003), but the controlled activation of reassurance seeking presents special difficulties because of its interpersonal nature. As an alternative way of exploring the characteristics of response to reassurance, therefore, we decided to examine the self reported reactions of people suffering from OCD regarding their reactions to situations in which they were offered reassurance and they were not offered reassurance. This was intended to supplement our previous findings describing qualitative and quantitative aspects of reassurance seeking in OCD (Kobori et al 2012, Kobori and Salkovskis 2013).

The present study, which uses the same samples as Kobori and Salkovskis (2013) investigates how individuals with anxiety disorders and healthy controls would feel when they fail to obtain reassurance, soon after they obtain reassurance, and 20 minutes or more after they obtain reassurance, hypothesizing that it will show patterns similar to those obtained in previous evaluations of the effect of carrying out compulsions or not.

Method

Self-report Measures

Reassurance-Seeking Questionnaire (ReSQ: Kobori and Salkovskis, 2013). This questionnaire has four different scales and a separate section designed to assess emotional reactions.

1. *Probability*: This section enquires how frequently participants seek reassurance, consisting of 22 items and five subscales: 'Involving Other People in Reassurance', 'Professionals', 'Direct Seeking from People', 'Self-Reassurance', and 'External References'.
2. *Trust*: This section is about how much participants trust a range of sources of information, and consists of 16 items and four subscales: 'Trust in People', 'Trust in Health Professionals', 'Trust in Self-Reassurance' and 'Trust in External Reference'.

3. *Intensity*: This section asks how many times participants seek the same reassurance until they stop, and consists of 16 items and four subscales: 'Direct Seeking from People', 'Self-Reassurance', 'Professionals', and 'External Reference'.
4. *Carefulness*: This section measures how careful participants become when they are seeking reassurance, and consists of 11 items and three subscales: 'Becoming Critical', 'Careful Listening', and 'Caring for the Person'.
5. *Emotional Changes*: This section deals with how participants would feel when they receive or fail to receive reassurance. They rate different emotions in terms of how they would feel from 'Much Less' (-5) to 'Much More' (+5) in three different situations; that is, soon after they received reassurance, 20 minutes or more after they receive reassurance and when the person they seek reassurance from does not answer their request. One rating of the extent to which they felt reassured was given, then three other as effects of reassurance, that is the urge to seek further reassurance, feelings of anxiety and feelings of guilt.

Structured Clinical Interview for Diagnostic and Statistical Manual of mental disorders (4th ed.) (DSM-IV) (SCID; First, Spitzer, Gibbon, & Williams, 1996). This is a diagnostic instrument based on the DSM-IV criteria for psychiatric disorders. The SCID has been demonstrated to have acceptable reliability and validity (Segal, Hersen, & Van Hasselt, 1994).

Obsessive-Compulsive Inventory – distress scale (OCI-D; Foa, Kozak, Salkovskis, Coles, & Amir, 1998). The OCI consists of 42 items composing seven subscales: washing, checking, doubting, ordering, obsessing (i.e., having obsessional thoughts), hoarding, and mental neutralising. Each item is rated from 0 (has not troubled me at all) to 4 (troubled me extremely).

Responsibility Attitude Scale (RAS; Salkovskis, Wroe, Gledhill et al,, 2000). This

26-item self-report measure investigates general assumptions, attitudes and beliefs held about responsibility for harm to self and others. Every item consists of a statement about responsibility and asks individuals to rate how much they agree with it on a scale ranging from 'totally agree' to 'totally disagree'. Scores are calculated by summing all of the assigned values that range from a score of 1 for answers of 'totally disagree' increasing to a score of 7 for answers of 'totally agree'. Salkovskis et al. (2000) reported that the RAS effectively discriminates between people with OCD and individuals with other anxiety disorders and non-clinical controls. The RAS has also been found to have high reliability and internal consistency (Salkovskis et al., 2000).

Responsibility Interpretations Questionnaire (RIQ; Salkovskis, Wroe, Gledhill et al,, 2000). This self-report measure was created to investigate the frequency of and degree of belief in individuals' interpretations (immediate appraisals) of specifically identified recent intrusions about harm coming to themselves or others. The RIQ has two subscales (belief and frequency), each with 22 responsibility appraisals. The items are the same on both subscales, but on the belief subscale the respondent asked to rate how much they believed a responsibility appraisal on a scale of 0–100%, whereas on the frequency subscale the respondent is asked to rate how frequently the responsibility appraisal occurred during the past week on a scale of 0 for never to 4 for always. Test–retest reliability and internal consistency are reported as good for adult populations (Salkovskis et al., 2000). In the current study, only the frequency part of the measure was used.

Beck Anxiety Inventory (BAI; Beck, Epstein, Brown, & Steer, 1988). This 21-item self-report measure assesses an individual's level of anxiety. Each question has four possible answers ranging from 0 – 'not at all', 1 – 'mildly', 2 – 'moderately' and 3 – 'severely' and individuals are asked to rate each symptom of anxiety listed using this scale. The BAI has been reported to have high internal consistency and good test–retest reliability (Beck et al., 1988).

Beck Depression Inventory (BDI; Beck and Steer, 1987). This 21-item self-report measure is a well-validated measure of depression severity in adults and adolescents, although it is not diagnostic. The inventory assesses cognitive, behavioural and somatic features of depression over the past week.

Participants

Participants are in three diagnostically defined groups: One hundred and fifty-three individuals who met DSM-IV criteria for the principal diagnosis of obsessive-compulsive disorder (OCD group), 50 individuals who met DSM-IV criteria for principal diagnosis of panic disorder with or without agoraphobia (AC group), and 54 non-clinical controls control group (HC group). Clinical participants were identified through a specialist anxiety disorders clinic and associated clinical units (83 in the OCD group, 35 in the anxious control group) and through an anxiety disorder charity (12 anxious controls) and two OCD charities (70 in the OCD group). Patients with comorbid problems were included if they identified OCD or Anxiety as their main problem by their own report.

Seven anxious controls and 2 healthy controls who scored more than 70 points on the total score of Obsessive Compulsive Inventory (Foa et al., 1998) were excluded the analysis. Although 83 obsessionals and 35 anxious controls were directly diagnosed using the Structured Clinical Interview for DSM-IV (SCID, First et al., 1995) by trained psychologists at the time they took part in this study, 70 obsessionals and 12 anxious controls had been self-diagnosed or diagnosed locally (e.g., by GP or PCT). However, individuals with OCD who were SCID screened and those who were not did not significantly differ in terms of the total score for OCI, RAS, RIQ, BDI, and BAI. Anxious controls who were SCID screened and those who were not did not significantly differ in terms of the total score for OCI, RAS, BDI, and BAI. Demographic status of the participants is presented in Table 1.

Insert Table 1 about here

Procedure

The questionnaire was completed by the participants in their own time. Participants recruited from an outpatient service were given the questionnaire prior to starting the treatment. Participants recruited from the charitable organisations for OCD and anxiety received and returned the questionnaire by post. Non-clinical participants recruited from the community such as stations and supermarkets took home the questionnaire and returned it by post. Participants were offered a £10 gift voucher for their participation.

General measures of psychopathology

Table 2 shows descriptive measures of psychopathology for participant groups. One way ANOVA revealed significant main effects of group in all the general measures of psychopathology (all *ps*<.001). Multiple comparisons using Tukey HSD indicated that, as expected. the OCD group scored higher on OCI, RAS, and RIQ than AC and HC groups. OCD and AC groups scored higher on BDI and BAI than HC group and did not differ from each other (Table 2).

Insert Table 2 about here

Results

Overview

The main analysis is in two sections. Firstly, the perceived effectiveness of reassurance in terms of rated emotional reactions reported following reassurance seeking and good/unsatisfactory provision were analysed using a mixed model ANOVA in order to evaluate how each group of participants reported reacting when they were not able to obtain reassurance at all, and when they receive reassurance in the short-term and in the long-term.

Group comparison of ratings of effectiveness of reassurance and emotional changes

In the first comparison, the degree to which reassurance had the desired impact (feeling reassured) was evaluated. This variable and the other ratings of emotional changes were analyzed using a mixed model ANOVA to evaluate how the three criterion groups reacted to three different situations; when the person from whom reassurance is sought fails to provide it (no reassurance), the short term effects when it is provided (short-term) and the longer term effect when it is provided (long-term). Ratings were scaled from 'Much Less' (-5) through 'No Change (0)' to 'Much More' (+5). Multiple comparisons were Bonferroni corrected.

Insert Table 3 about here

(1) Change in ratings of the extent of feeling reassured

ANOVA revealed significant main effects for Group, $F(2,241)=4.294$, $p=.015$, and Situation, $F(2,241)=676.808$, $p<.001$. The group x situation interaction was not significant, $F(4,239)=1.865$, $p=.115$. The Bonferroni multiple comparison of between group differences revealed that OCD group rated themselves as more reassured overall than the HC group ($p=.011$) but not the AC group ($p>0.05$). The multiple comparison of within factors using Bonferroni corrections revealed that regardless of group, participants rated themselves as significantly more reassured in the short-term relative both to long-term ($p<.001$) and being given no reassurance ($p<.001$); the longer term impact of being given reassurance was rated as significantly greater relative to being given no reassurance ($p<.001$) (see table 3 for group means).

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(2) Change in the urge to seek more reassurance

The repeated measures ANOVA for this variable revealed significant main effects of Group,

$F(2,239)=19.268$, $p<.001$, and for Situation (within factor), $F(2,239)=53.947$, $p<.001$; again the group by situation interaction was not significant $F(4,237)=1.177$, $p=.320$. The Bonferroni corrected multiple comparison for between factors indicated that the OCD group experienced significantly stronger urges to seek reassurance overall than the AC group ($p=.005$) and HC group ($p<.001$). The comparison between the AC group and HC was not significant ($p=.072$). Multiple comparisons for the within factor using Bonferroni corrections revealed that participants rated themselves as needing significantly more reassurance when no reassurance was given relative to short-term ($p<.001$) and long-term ($p<.001$) ratings. The urge to seek reassurance in the short term was also significantly reduced relative to ratings for the longer term ($p=.023$).

(3) Anxiety ratings

The repeated measures ANOVA for this variable revealed significant main effects of Group, $F(2,241)=12.950$, $p<.001$ and for Situation, $F(2,241)=136.296$, $p<.001$; these were modified by a significant group by situation interaction, $F(4,239)=3.146$, $p=.014$. The post-hoc analysis of simple main effects (each group entered separately into a one way ANOVA with Bonferroni multiple comparisons) indicated that the OCD and AC groups rated their anxiety as significantly higher than control group when no reassurance was given, and the OCD group rated their anxiety as significantly higher than healthy controls at long-term but not at short term. An analysis of simple main effects for within factors suggests that all groups rated themselves as more anxious when no reassurance was offered relative to than short and long-term anxiety when reassurance was given. OCD and AC groups rated their as being significantly higher at long-term relative to short-term; this was not true for the HC group (see table 3 for a full breakdown of differences)

Insert Figure 1 about here

(4) Change in feeling guilty

The repeated measurees ANOVA for this variable revealed a significant main effect for Group,

$F(2,242)=13.961$, $p<.001$, but not for Situation $F(2,240)=.328$, $p=.721$ or for the groupX situation Interaction, $F(4,241)=1.943$, $p=.102$. The multiple comparison between groups overall using Bonferroni comparisons indicated HC group rated themselves as significantly less guilty than both the OCD group ($p<.001$) and AC group ($p<.001$), who did not differ from each other ($p>0.05$).

Discussion

The present study was conducted in order to characterise the reactions of people with OCD and make a comparison with both non-OCD anxious and healthy groups to situations involving the seeking and giving of reassurance. Three different situations were evaluated; immediately after the person from whom reassurance is sought provides it (short-term) and 20 minutes or more after they receive reassurance (long-term); the third comparison refers to when the person fails to offer reassurance (no reassurance). The findings indicate that reassurance is perceived by people suffering from OCD as beneficial and highly effective in terms of the extent to which they feel reassured and the experience of reduced anxiety and reduced need for further reassurance in the shorter term. Being reassured produces a better outcome relative to not receiving reassurance in all respects. Although there is evidence that these benefits diminish over the medium to longer term, they are still evident relative to the impact of not having been reassured. From the perspective of the person seeking reassurance, it thus provides relief which is diminished but not dissipated in the medium to long term. Specifically, the results of the anxiety ratings suggests that all groups experience anxiety reductions when reassured, but only the clinical groups (OCD and AC groups) experience a significant return of anxiety, suggesting that such an effect is clinically relevant but not disorder specific. Similarly when reassurance is not received, the clinical groups indicate that they would experience significantly more anxiety than healthy controls. These findings correspond to those in previous "spontaneous decay" research in with OCD checking (Rachman, de Silva, and Roper, 1976; de Silva, Menzies, and Shafran, 2003). Taken together, these results are consistent with the view that the response to reassurance is very similar to the response to obsessional checking.

It is also notable that although healthy controls report experiencing some relief from obtaining reassurance relative to not doing so, they show neither a longer term urge to seek more reassurance nor a return of anxiety, whilst both clinical groups do. The results also make it clear that although individuals with anxiety disorders may be aware that the effect of reassurance is relatively transient, their prediction of a diminished medium term positive effect still represents a significant benefit relative to their expectation of what would have happened had they not been reassured. Simply put, for people suffering from anxiety disorders and OCD reassurance is unequivocally a good thing to do in the absence of any helpful alternative; in many instance it is the only possible response. The healthy controls experience reassurance as mostly beneficial with little evidence of adverse effects in the medium term; presumably this is also the experience of patients prior to the development of their anxiety problems, and as such represents an appropriate and helpful response to high levels of perceived threat.

Typically those close to patients who seek reassurance will also have the experience of reassurance being actually helpful in their daily lives with other people in general, and this is likely to be true for their loved ones seeking their help with their anxiety disorder in particular. As such, the "reassurers" are therefore likely to perceive the offering of reassurance as the only helpful strategy which they can use with their loved ones even before the distress which can follow a refusal to give reassurance is not factored in. Consistent with this, we have recently found that those who regularly provide reassurance to people suffering from OCD are able to accurately assess short and longer term impact of their provision of reassurance and the fact that overall that it has both short and medium term benefits for the person with OCD relative to not receiving reassurance at all.

The discrepancy between long-term and short-term changes, that is, the resurgence of anxiety and the perceived need for reassurance, is of particular interest given that this phenomenon was characteristic of the clinical groups but not the healthy controls. The results suggest that individuals with OCD felt less reassured and more anxious if they generally report seeking reassurance more intensely, consistent with the view that high levels of reassurance seeking is *ultimately* counterproductive. Surprisingly, people with OCD report less return of urges to seek reassurance if they are more generally anxious as

measured by BAI. It is possible that the more highly anxious individuals turn to other forms of compulsive behaviour rather than trying to seek more reassurance.

Overall, results are consistent with both clinical impression and previous studies that reassurance in anxious patients is temporary in its effects and thus may be ultimately counterproductive, leading to further increases in reassurance seeking as part of a maintenance cycle (Hallam, 1974; Salkovskis & Warwick, 1986; Tolin, 2001).

It remains unknown whether individuals with other anxiety disorders (e.g., health anxiety, social phobia, specific phobia etc) show similar patterns of responding to OCD or panic disorder. Clearly an experimental replication of the findings of the present study is needed. So far, no study has experimentally tested the effect of reassurance in OCD, a crucial next step. Additionally, it is still unclear what kind of reassurance (e.g., verbal answer from others/professionals, self-reassurance, external reference, or assisting rituals) is 'good' for certain circumstances and how patients decide when to stop seeking reassurance once they begin (Parrish and Radomsky, 2009).

Finally, since reassurance seeking by definition involves interpersonal processes, it would be essential to consider other people's experience. Partners and family members are most likely to be involved in offering reassurance to people suffering from anxiety disorders, and we need to examine how often they are asked for reassurance, how they are asked (e.g., directly, indirectly, asked to take part in rituals etc), how often they provide reassurance, how they feel and how they think sufferers would feel when they provide and do not provide reassurance, and what motivates them to provide reassurance. The results of the present study do clearly demonstrate that individuals with OCD would feel much worse when they cannot obtain reassurance compared to the short-term *and* the long-term. Little is known about they way sufferers deal with frustration and irritation when their partners/family members are repeatedly asked for reassurance, and the way they try to alleviate the effects of repeatedly asking their loved ones for reassurance.

Conflict of interest statement:

Neither author has any conflicts of interest to declare in relation to this work and manuscript

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Table 1: Demographic status of the participants

		OCD (n=153)	AC (n=50)	HC (n=52)
Gender	Female : Male	105:48	36:13	37:17
Age	M (SD)	35.11 (12.12)	40.16 (13.47)	40.40 (15.02)
Ethnicity	Asian	3% (5)	0% (0)	6% (3)
	Black	1 (2)	4% (2)	6% (3)
	Caucasian	86% (130)	80% (38)	84% (44)
	Mixed	5% (8)	8% (4)	0% (0)
	Other	5% (7)	8% (4)	4% (2)
Highest	None or primary	4% (7)	7% (3)	2% (1)
educational	Secondary or diploma	55% (78)	44% (18)	43% (20)
qualification	Degree or postgraduate	41% (60)	49% (20)	55% (26)
Marital	With partner (married, dating, cohabiting)	59% (88)	57% (27)	69% (34)
Status	Without partner (single, divorced, widowed)	41% (61)	43% (21)	31% (15)
Occupation	Employed or in education	65% (99)	48% (23)	85% (44)
	Not employed nor in education	35% (52)	52% (25)	15% (8)
Benefit	On benefit	66% (99)	56% (27)	94% (48)
	Not on benefit	34% (51)	44% (21)	6% (3)

Table 2: General measures of psychopathology

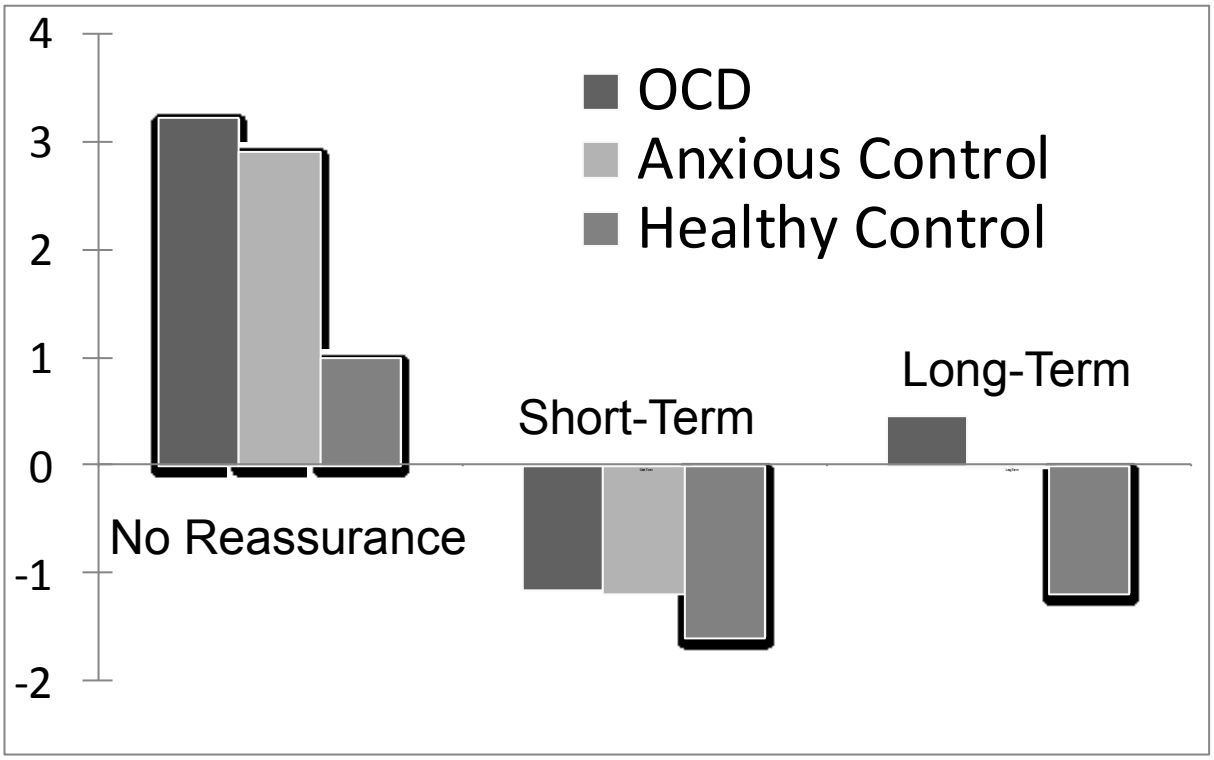
	OCD (n=153)	Anxious Control (n=50)	Healthy Control (n=52)	
Variable	Mean (SD)	Mean (SD)	Mean (SD)	*F*(2, 249)
OCI (total)	77.44 (35.63)[a]	26.14 (20.28)[b]	22.40 (16.78)[b]	96.17
Wash	13.73 (10.89)[a]	3.30 (4.16)[b]	3.06 (3.50)[b]	43.99
Check	17.40 (9.78)[a]	5.02 (5.38)[b]	5.21 (4.53)[b]	68.38
Doubt	6.46 (3.76)[a]	1.66 (2.16)[b]	1.85 (1.82)[b]	67.05
Ordering	8.95 (6.57)[a]	3.26 (3.78)[b]	3.40 (3.87)[b]	30.42
Obsession	16.99 (7.87)[a]	8.60 (6.56)[b]	4.71 (4.24)[c]	70.65
Hoarding	3.76 (3.94)[a]	1.70 (2.48)[b]	1.87 (1.91)[b]	10.58
Neutralizing	9.30 (6.28)[a]	2.78 (2.65)[b]	2.31 (2.12)[b]	53.85
RAS	130.26 (32.70)[a]	112.80 (28.63)[b]	100.04 (24.94)[b]	19.71
RIQ	58.54 (24.07)[a]	37.61 (23.67)[b]	25.35 (23.80)[c]	37.94
BDI	22.13 (12.27)[a]	18.53 (11.42)[a]	9.06 (8.41)[b]	23.77
BAI	23.89 (13.23)[a]	27.85 (13.57)[a]	8.11 (8.21)[b]	35.79

Table 3. Emotional changes reported by groups across situations; In the absence of an interaction, superscripts refer to main effects across groups for "reassured", "urge to seek more" and "guilt". For anxiety the interaction was significant; superscripts refer to the within comparison.

	Group	OCD		Anxious Control		Healthy Control	
Emotion	Situation	Mean	(SD)	Mean	(SD)	Mean	(SD)
Reassured	No Reassurance	-3.17	(1.96)	-3.11	(2.21)	-2.63	(1.75)
	Short-term	3.26	(1.34)	3.13	(1.10)	3.29	(1.01)
	Long-term	1.46	(2.13)	1.88	(2.00)	2.57	(1.63)
	Mean across groups	0.52[a]	(1.81)	0.63	(1.77)	1.08[b]	(1.46)
Urge to seek more	No Reassurance	3.57	(2.19)	2.21	(2.99)	1.88	(2.73)
	Short-term	1.14	(2.73)	0.65	(2.77)	-0.82	(2.40)
	Long-term	1.90	(2.57)	0.73	(2.62)	-0.33	(2.68)
	Mean across groups	2.21	(2.50) [a]	1.20 [b]	(-2.79)	0.24[b]	(-2.60)
Anxious	No Reassurance	3.24[a]	(2.08)	2.92[a]	(2.16)	1.00[b]	(2.77)
	Short-term	-1.13	(2.76)	-1.19	(2.72)	-1.63	(2.14)
	Long-term	0.44[a]	(2.68)	-0.02 [a]	(2.23)	-1.35[b]	(2.17)
	Mean across groups	0.85	(2.51)	0.57	(2.37)	-0.66	(2.36)
Guilty	No Reassurance	1.09	(2.96)	1.38	(3.25)	0.27	(2.30)
	Short-term	1.54[a]	(2.18)	1.17[a]	(2.58)	-0.53[b]	(1.91)
	Long-term	1.63[a]	(2.10)	1.40[a]	(2.57)	-0.39[b]	(1.73)
	Mean across groups	1.42	(2.39)	1.32	(2.80)	-0.22	(1.98)

Figure captions

Figure 1: Change in anxiety


4
3
2
1
0
-1
-2
OCD
Anxious Control
Healthy Control
No Reassurance
Short-Term
Long-Term