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What do you really need? Self- and partner-reported intervention preferences within cognitive behavioural therapy for reassurance seeking behaviour

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Abstract

Background: Reassurance seeking (RS) in obsessive compulsive disorder (OCD) is commonly addressed in cognitive behavioural therapy (CBT) using a technique called reducing accommodation. Reducing accommodation is a behaviourally based CBT intervention that may be effective; however, there is a lack of controlled research on its use and acceptability to clients/patients, and case studies suggest that it can be associated with negative emotional/behavioural consequences. Providing support to encourage coping with distress is a cognitively based CBT intervention that may be an effective alternative, but lacks evidence regarding its acceptability.
Aims: This study aimed to determine whether support provision may be a more acceptable/endorsed CBT intervention for RS than a strict reducing accommodation approach.
Method: Participants and familiar partners ($N = 179$) read vignette descriptions of accommodation reduction and support interventions, and responded to measures of perceived intervention acceptability/adhereability and endorsement, before completing a forced-choice preference task.
Results: Overall, findings suggested that participants and partners gave significantly higher ratings for the support than the accommodation reduction intervention (partial $\eta^2 = .049$ to $.321$). Participants and partners also both selected the support intervention more often than the traditional reducing accommodation intervention when given the choice.
Conclusions: Support provision is perceived as an acceptable CBT intervention for RS by participants and their familiar partners. These results have implications for cognitive behavioural theory and practice related to RS.

Introduction

When a person feels anxious or uncertain, a common response is to seek reassurance from another person. For some, though, reassurance seeking (RS) becomes problematic, such as by interfering with functioning (e.g. not making decisions at work before receiving reassurance) or interpersonal relationships (e.g. causing relationship strain; Kobori and Salkovskis, 2013; Parrish and Radomsky, 2010; Rector *et al.*, 2011). Problematic RS is defined as repetitively asking for safety-related information about a perceived threat, despite having received the information before (Parrish and Radomsky, 2010). Problematic RS is evidenced in obsessive compulsive disorder (OCD), where it shares features with checking (e.g. Parrish and Radomsky, 2010; Rachman, 2002), as well as in other disorders including depression (e.g. Coyne, 1976), generalized anxiety (e.g. Beesdo-Baum *et al.*, 2012), social anxiety (Heerey and Kring, 2007),

and illness anxiety/hypochondriasis (e.g. Salkovskis and Warwick, 1986). Theories across different problem domains suggest that RS contributes to the maintenance of disorders by preventing corrective learning, and therefore warrants attention in treatment (e.g. Coyne, 1976; Rachman, 2002; Salkovskis, 1985).

In the context of OCD, RS is common – over 40% of clinical participants report engaging in it (Starcevic et al., 2012). Despite its prevalence, only a small number of single-case reports have described clinical responses to interventions for RS in OCD (Hallam, 1974; Halldorsson and Salkovskis, 2017a; Marinchak, 2013). In addition, as RS is an interpersonal behaviour, researchers and clinicians increasingly suggest that reassurance *providers* be involved in treatment, as it may improve outcomes by targeting another maintaining factor, namely, the partner's response (e.g. Abramowitz, 2009; Gillihan et al., 2012). However, the lack of extant research creates practical difficulties for clinicians when deciding how to guide significant others to respond to RS.

Within the literature on RS in OCD, the intervention most often suggested, and which was described in case examples (Hallam, 1974; Marinchak, 2013), is based on extinction of RS behaviour by removing the reinforcement provided by others' accommodation. This is a component of cognitive behavioural therapy (CBT) for OCD called 'Exposure and Response Prevention' (ERP) that focuses on having a client/patient confront feared stimuli while refraining from engaging in compulsive behaviour, with suggestions that the mechanism of change is decreased reactivity over time (i.e. habituation; e.g. Foa and Kozak, 1986), or inhibitory learning, whereby information that a patient learns interferes with their ability to retrieve previously established, fear-associated responses (e.g. Craske et al., 2014). Using either framework, *reducing accommodation* is a central goal when ERP is applied to the context of RS, and partners are consequently guided to not answer requests for reassurance (e.g. Abramowitz, 2009; Abramowitz et al., 2013; Osborne and Williams, 2013).

In practice, recommendations for how to use an accommodation reduction approach vary, but generally suggest that partners ignore requests for reassurance or provide a neutral, non-reassuring response (e.g. 'I've been instructed to not provide reassurance'; Abramowitz, 2009; Clark, 2004; see also Abramowitz et al., 2013; and Thompson-Hollands et al., 2015, for preliminary studies of using accommodation reduction for OCD more broadly). Unfortunately, specific procedures and effects related to using accommodation reducing for RS are unclear, which corresponds strongly to the lack of controlled studies examining how the intervention effects this uniquely interpersonal compulsion. The intervention *appears* effective, as the case studies noted that removing accommodation resulted in decreased RS (Hallam, 1974; Marinchak, 2013). Yet, in addition to providing information about the positive effects, these case studies provide valuable insights into patients' (and others') reactions to the intervention, which appear to be mixed.

Although there is preliminary evidence that reducing accommodation may be effective in decreasing RS behaviour, the case studies by Hallam (1974) and Marinchak (2013) noted negative reactions by reassurance seekers that may pose an obstacle to positive outcomes, including desire to end treatment, heightened anger, and self-harming behaviour. Additionally, the case studies did not provide structured evidence of patients' or others' perceptions of the treatment, which could have implications for adherence to/acceptance of the intervention. Indeed, anecdotal reports and qualitative studies with significant others suggest that it can be difficult for them to adhere to reducing accommodation, as they often find it distressing not to provide reassurance, and/or feel that not providing reassurance increases the other person's anxiety too much to be feasible as a long-term strategy (e.g. Halldorsson et al., 2016). In practice, it is critical to ensure that effective treatments are also acceptable to patients, such that those who could benefit are willing to seek and complete them (e.g. Levy and Radomsky, 2014, 2016; Milosevic and Radomsky, 2013; Rachman et al., 2008). Thus, while reducing accommodation may be effective in decreasing RS behaviour, there is a paucity of research

overall examining its use, and suggestions that it may not be entirely acceptable to clients/patients. Accordingly, it would be relevant to establish whether reducing accommodation to RS in OCD is the best CBT-based approach, or whether there may be a similar, yet more acceptable approach.

In considering whether there may be a more acceptable alternative to traditional reducing accommodation, it is pertinent to consider the function of RS behaviour in OCD. When individuals with clinical disorders seek reassurance, part of what renders the behaviour problematic is that information is sought repetitively, despite having received an answer previously (Kobori and Salkovskis, 2013; Parrish and Radomsky, 2010; Rector *et al.*, 2011). If individuals are seeking reassurance in a repetitive/ritualistic fashion, then it can logically be assumed that the individual already has the information that they appear to be seeking, in the same way that a person who engages in repetitive checking behaviour already has information about that which they are checking because they checked it previously (see also Rachman, 2002, 2012). As such, it is theorized that individuals are searching for something other than information when they seek reassurance, such as *support* to help them cope with distress. That is, when individuals experience heightened perceptions of threat and/or responsibility for preventing harm (e.g. Salkovskis, 1999), a function of the RS may be to elicit social support to help them tolerate the anxiety/distress evoked by those perceptions. If difficulty tolerating distress is a primary mechanism underlying the maintenance of problematic RS, then encouraging the person to tolerate distress by providing targeted social support without providing the requested reassurance may be a helpful response style. This proposed function of eliciting support to promote distress tolerance merits consideration with regard to intervention procedures, as support aimed specifically at encouraging coping with/tolerance of negative affect is distinguishable from more general supportive responding meant to 'rescue' the reassurance seeker from the experience of distressing cognitions or emotions (e.g. Halldorsson and Salkovskis, 2017a). Guiding partners to provide support to encourage distress/anxiety tolerance is theorized to not interfere with disconfirmatory learning as neutralizing reassurance would, but instead, to facilitate positive engagement with anxiety-provoking situations by encouraging the person to use coping skills, and/or to stay in a situation despite perceiving threat (Halldorsson and Salkovskis, 2017a,b; Rachman, 2012). Accordingly, providing support is conceptualized as functionally distinct from reassurance (see also Halldorsson and Salkovskis, 2017a). To date, one case study examined a CBT technique based on this notion that individuals may be helped by receiving support to cope with distress/anxiety when they have difficulties with RS; results suggested that RS was markedly reduced and that the patient was positively engaged with therapy (Halldorsson and Salkovskis, 2017a). However, the authors did not present findings specific to treatment acceptability.

In contrast with the behavioural focus of traditional ERP-based approaches within CBT for RS in OCD, a support-provision approach is based on cognitive theories of why obsessions and compulsions persist, suggesting that addressing misappraisals of threat/ability to cope with threat will lead to symptom reduction over time (e.g. Clark, 2004; Rachman, 1997, 2002; Salkovskis, 1985). Hence, if a partner's responses to requests for reassurance do not provide information that the person is requesting, but instead support the person in coping with/tolerating distress, then it may in turn encourage treatment-facilitating approach behaviour/reduce avoidance behaviour. In this way, providing support shares similarities with the judicious use of approach-facilitating aids that is associated with higher acceptability of ERP for other forms of compulsive behaviour (e.g. Levy and Radomsky, 2014, 2016; Milosevic and Radomsky, 2013; Parrish *et al.*, 2008; Rachman, 2012; Senn and Radomsky, 2015; Sighvatsson and Salkovskis, 2013). Still, the lack of evidence for each style leaves it unclear how to guide partners' involvement in CBT for RS, such that the intervention is perceived as effective and acceptable by the reassurance seeker and provider.

The aim of this study was to inform CBT intervention recommendations for RS by examining the perceived endorsement and acceptability of CBT techniques based on either reducing

accommodation or providing support, as reported by individuals and a familiar partner. Specifically, this study examined which of the interventions was perceived as more acceptable/ adherable and was endorsed more by individuals and partners, and which of the interventions they would prefer if given the choice.

It was expected that participants and partners would rate a support-provision intervention as more acceptable/adherable and that it would receive higher ratings of endorsement in comparison with an accommodation reduction intervention, within an overall framework of using CBT to address RS within OCD. Furthermore, it was hypothesized that participants and partners would prefer the support intervention over the accommodation reduction intervention when presented with the choice.

Method

This study employed a vignette design to assess participants' and familiar partners' perceptions, respectively, of two styles of CBT intervention for RS. Vignette designs allow valuable insight into respondents' perceptions, and have been used to ascertain intervention preferences including for OCD (e.g. Milosevic and Radomsky, 2013), trichotillomania (Elliott and Fuqua, 2002), depression (Caporino and Karver, 2012), health anxiety (Soucy and Hadjistavropoulos, 2017), and parents' of children with autism spectrum disorder (Evans and Jastrowski Mano, 2016). This study was reviewed and approved by the University Human Research Ethics committee (certificate no. 30006114).

Participants

Undergraduate participants ($N = 179$, mean age $= 21.93$ years ($SD = 4.07$); 87.70% female; 62.60% Caucasian) were recruited via a university participant pool, classroom announcements, and flyers. Participants were required to bring a familiar partner with them to the study (e.g. friend, family, romantic partner), as research suggests that familiarity influences perceptions of RS behaviour (Neal and Radomsky, 2015). Partners had an average age of 22.32 years ($SD = 5.16$), and the majority identified as female (68.20%) and Caucasian (58.10%). All participants and partners were required to be able to read, write and communicate fluently in English. All respondents were offered the choice of class credits or ballots into a cash draw.

Counterbalancing of the order of the intervention descriptions was not possible due to the nesting of the procedures within a broader design. Consequently, after an initial group of participants completed the study responding to the support-provision description first ($n = 132$; see also 'Procedure' section), data were collected from a secondary group of participants who responded to the accommodation reduction description first ($n = 47$).

Measures

Demographics
Participants and partners were asked to provide their age, gender, ethnicity and language.

Treatment Acceptability and Adherence Scale (TAAS; Milosevic et al., 2015)
The TAAS is a 10-item, self-report measure of the extent to which individuals feel that an intervention is acceptable and that they could adhere to its requirements, as well as reverse-scored items assessing the likelihood that they would drop out of the intervention and how much distress it would evoke. Items are rated on a 7-point, Likert-type scale with possible total scores ranging from 10 to 70, where higher overall scores indicate greater

acceptability/adherability. The TAAS demonstrated good internal consistency in previous samples (α = .87 to .88; Milosevic *et al.*, 2015) and in the current study (α = .814 to .880).

Endorsement and Discomfort Scales (EDS; Tarrier et al., 2006)

The EDS is a self-report assessment of how an intervention is perceived, consisting of 10 scales: nine of positive endorsement (Acceptability; Suitability; Tolerability; Expectation of benefit; Credibility; Efficacy; Appropriateness; Reasonableness; Justifiability); and one assessing Discomfort provoked by the intervention. Items are rated on a 9-point, Likert-type scale. A total was obtained by reverse-scoring the Discomfort item and then summing the scores, with possible total scores ranging from 10 to 90, and with higher total scores indicating stronger endorsement. The EDS demonstrated excellent internal consistency in the current investigation (α = .917 to .961).

Forced-choice preference rating

The forced-choice rating was a single-item question developed for this study assessing which of the two intervention options respondents would prefer. Respondents selected the option from a drop-down list.

Procedure

Participants arrived for the study accompanied by their familiar partner, and completed a consent form. Participants and partners were seated individually at computers, and provided demographics information before being presented with the vignette task.

The task began with a definition of RS and a description that the study was examining preferences related to interventions for RS. The task then provided an imaginal prompt: participants were asked to imagine that they were seeking help because RS was interfering with *their* life, and to imagine how they would respond if they were being offered CBT intervention. They were informed that CBT would involve psychoeducation about RS, and that the intervention would involve changing how significant others respond to requests for reassurance.

Participants were told that to customize the treatment to their preference, they would be presented with two variations of the therapy. Participants read rationales of and descriptions for the support-provision intervention and the accommodation reduction intervention (please see Appendix A in Supplementary Material), and responded to the TAAS and EDS for each. Finally, respondents completed the forced-choice rating. Partners completed the task in the same manner as described above, but rather than responding to the task as though they were seeking intervention themselves, partners were asked to imagine that their *loved one* was seeking intervention and would be involving them (i.e. if their family member or friend were seeking help for excessive RS behaviour and was asking them to assist by the partner changing their own responses to RS). Upon completion of the task, participants and partners were debriefed.

Results

Data preparation

Nine participants' data were excluded due to lack of English proficiency and/or protocol deviations. This resulted in a final sample size of 179 participants and partners. Visual inspection and examination of frequencies revealed that there were no missing data within the primary outcome variables.

Standardized skewness and kurtosis values of the EDS and TAAS factor and total scores were examined to assess the normality of the data within the participant and partner data sets. Within the participant data and using a cut-off of $z = \pm 3.29$ (Field, 2009), the total score for ratings of the support intervention were significantly negatively skewed for the TAAS ($z = -3.544$); no kurtosis values exceeded the cut-off. Within the partners' data, the EDS for the support provision intervention was significantly negatively skewed ($z = -5.598$) and leptokurtic ($z = 6.144$). Accordingly, the standardized outcome measures were inspected for outlying cases to determine whether extreme scores were affecting the distribution. One participant was identified as having significantly outlying scores for total EDS, and one partner was identified as having outlying scores on the EDS total for the support intervention. Each outlying score was replaced by the value representing ± 3.29 SD of the mean, which was identified by adding or subtracting 3.29 times the standard deviation to the mean (as per Field, 2009). Following these changes, inspections of P–P plots suggested that the variables were approximately normally distributed.

Participants' and partners' data on demographic variables as well as on the outcome variables from the TAAS or EDS were compared across the two orders of vignette presentation to determine whether there were any pre-existing differences between groups. The participants' data showed no significant differences based on vignette order concerning age (χ^2 (15) = 22.236, $p = .102$), gender (χ^2 (2) = 2.359, $p = .307$), language (χ^2 (12) = 8.793, $p = .721$), or ethnicity (χ^2 (9) = 5.953, $p = .745$). The participants' data showed no significant differences based on vignette order of presentation for the accommodation reduction intervention when rated on the EDS (χ^2 (67) = 71.491, $p = .331$) or TAAS (χ^2 (48) = 61.949, $p = .085$); there were also no significant differences based on order for the support provision intervention when rated on the EDS (χ^2 (59) = 71.866, $p = .121$) or TAAS (χ^2 (42) = 47.938, $p = .245$).

Examination of partners' data based on vignette order showed no significant differences for age (χ^2 (16) = 13.645, $p = .625$), gender (χ^2 (3) = 1.303, $p = .729$), language (χ^2 (15) = 12.664, $p = .628$), or ethnicity (χ^2 (8) = 10.696, $p = .220$). The partners' data showed a significant difference based on vignette order of presentation for partners' ratings of the accommodation reduction intervention when rated on the TAAS (χ^2 (47) = 64.194, $p = 048$, $M_{\text{Support first}}$ = 41.95, SD = 12.39; $M_{\text{Accommodation reduction first}}$ = 49.36, SD = 7.73); however, there was no significant difference based on order when rated on the EDS (χ^2 (68) = 72.834, $p = .322$). The partners' data showed no significant differences based on vignette order for the support provision intervention when rated on the EDS (χ^2 (45) = 48.888, $p = .320$) or TAAS (χ^2 (36) = 47.827, $p = .090$).

Intervention perceptions

To examine participants' and partners' (respective) intervention perceptions, a series of mixed ANOVAs were conducted with vignette order as a between-subjects variable, with intervention type as the within-subjects variable, and with ratings on the TAAS (Milosevic et al., 2015) and the EDS (Tarrier et al., 2006), respectively, as outcomes. Bonferroni corrections were applied where appropriate to account for the effects of multiple comparisons.

Participants

When examining participants' perceptions of intervention acceptability/endorsement using the EDS, there were significant main effects of intervention type (F (1,177) = 48.985, $p < .001$, partial $\eta^2 = .217$), with the support provision intervention receiving higher ratings of perceived acceptability/endorsement than the accommodation reduction intervention; and vignette order (F (1,177) = 10.638, $p = .001$; partial $\eta^2 = .057$), with participants who viewed the accommodation reduction intervention first providing higher ratings to the
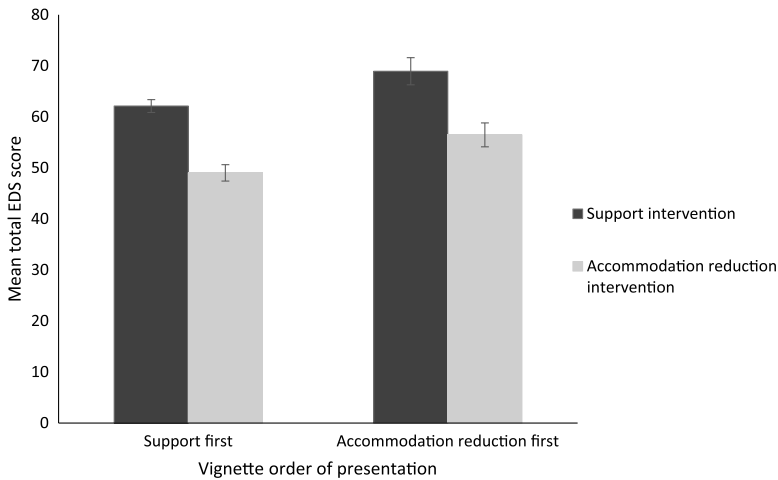
Figure 1. Participants' intervention ratings using the Endorsement and Discomfort Scales (EDS), by vignette order of presentation. Data are presented with standard error bars.
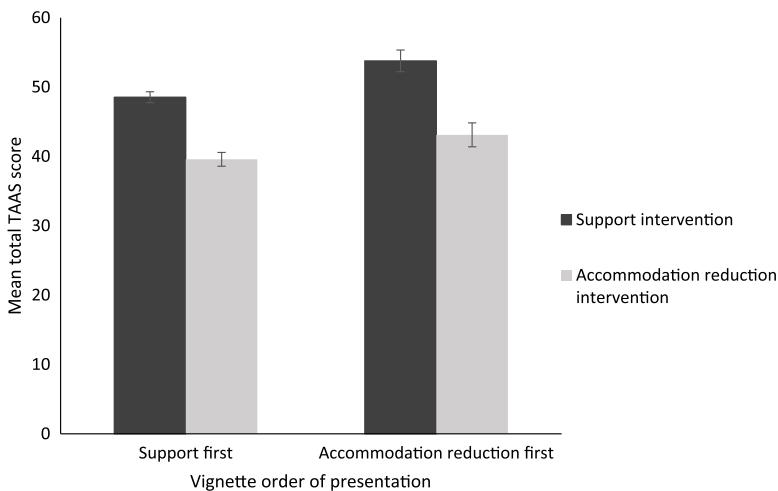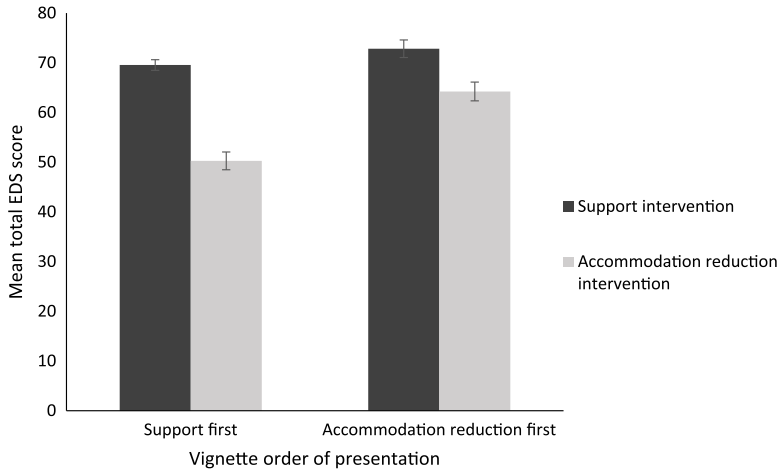

Figure 2. Participants' intervention ratings using the Treatment Acceptability and Adherence Scale (TAAS), by vignette order of presentation. Data are presented with standard error bars.

accommodation reduction intervention as well as to the support provision intervention. There was no significant interaction effect ($F (1,177) = 0.029$, $p = .865$; partial $\eta^2 = .000$). Please refer to Fig. 1.

The same pattern of results held when examining participants' intervention ratings using the TAAS, wherein there were significant main effects of intervention type ($F (1,177) = 83.769$, $p < .001$, partial $\eta^2 = .321$) and vignette order ($F (1,177) = 9.211$, $p = .003$, partial $\eta^2 = .049$) and no significant interaction effect ($F (1,177) = 0.638$, $p = .426$, partial $\eta^2 = .004$). Please refer to Fig. 2.

Partners

Inspection of the partners' ratings of perceived intervention acceptability using the EDS suggested that there were significant main effects of intervention type ($F (1,175) = 50.233$, $p < .001$, partial

Figure 3. Partners' intervention ratings using the Endorsement and Discomfort Scales (EDS), by vignette order of presentation. Data are presented with standard error bars.

$\eta^2 = .223$), with the support provision intervention receiving higher ratings overall than the traditional accommodation reduction intervention; and vignette order (F (1,175) = 20.135, $p < .001$, partial $\eta^2 = .103$), with participants who viewed the accommodation reduction description first providing somewhat higher ratings. There was also a significant interaction effect (F (1,175) = 7.378, $p = .007$, partial $\eta^2 = .040$), with the magnitude of the difference between ratings of the support intervention *versus* the accommodation reduction intervention being lesser for partners who viewed the accommodation reduction intervention first. Please refer to Fig. 3.

The same pattern of results was observed for partners' ratings on the TAAS as with the EDS above, with significant main effects of intervention type (F (1,175) = 67.486, $p < .001$, partial $\eta^2 = .278$) and vignette order (F (1,175) = 16.198, $p < .001$, partial $\eta^2 = .085$), and a significant interaction effect (F (1,175) = 4.095, $p = .045$, partial $\eta^2 = .023$) such that the support provision intervention received the highest ratings of acceptability/endorsement overall, but the magnitude of the difference in ratings between the two intervention options varied between partners who viewed the accommodation reduction intervention first *versus* the support intervention first. Please refer to Fig. 4.

Forced-choice task

To examine the hypothesis that participants and partners would show preference for the support-provision intervention in comparison with accommodation reduction, binomial tests were conducted to compare the preference rating data against chance rates (i.e. 50%). Results examining participants' intervention preference rating indicated that the proportion of participants who chose the support intervention was .82 ($p < .001$), greater than the expected value of .50. The proportion of partners who chose the support intervention was similarly .83 ($p < .001$), greater than the expected chance rate.

Discussion

This study presents an evaluation of the acceptability and endorsement of two styles of cognitive behavioural intervention techniques to reduce RS behaviour, using both first-person and partner perceptions. Specifically, this study compared a CBT intervention aimed at guiding partners to
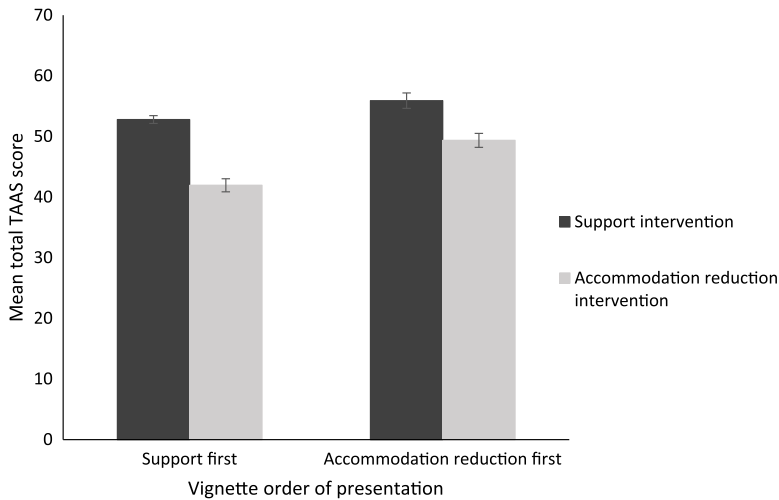
Figure 4. Partners' intervention ratings using the Treatment Acceptability and Adherence Scale (TAAS), by vignette order of presentation. Data are presented with standard error bars.

provide support for coping with/tolerating distress (e.g. 'You've handled uncertainty before, and you can do it again') with the most commonly used CBT intervention for RS, which entails reducing accommodation to requests for reassurance (e.g. 'I've been told not to answer that question'). It was hypothesized that both participants and their familiar partners would provide higher ratings of perceived acceptability/adherence, and of endorsement, for the support-based intervention compared with an accommodation reduction intervention. It was also hypothesized that participants and partners would prefer the support intervention in a forced-choice task.

In line with hypotheses, the overall results suggested that participants and partners gave higher ratings of acceptability and endorsement across measures for the support intervention compared with the accommodation reduction protocol. Findings also showed that participants and partners preferred the support intervention when given a choice. In practical terms, these findings indicate that participants and partners perceive that they would be more likely to complete the support-provision intervention and would find it less distressing than the accommodation reduction intervention, when each is presented within an overall framework of using CBT techniques. The current results also complement the findings by Halldorsson and Salkovskis (2017a) showing that a support intervention successfully reduced RS, as well as experimental findings by Neal and Radomsky (2019) suggesting that support provision was perceived as helpful and potentially associated with decreased RS frequency, suggesting that the support provision intervention is also seen as highly acceptable/adherable and endorsable. Still, controlled studies are needed to add credence to the effectiveness of the support intervention in decreasing problematic RS.

Another consideration relates to the interaction found for partners' intervention ratings, which suggested that the advantage in ratings for the support intervention over accommodation reduction became less pronounced when the accommodation reduction description was presented first. This suggests that partners may find reducing accommodation to be a more appealing CBT intervention option when they have not received information about the support intervention alternative. As the condition numbers were unbalanced in this study due to the nesting of the current procedures within a larger study design, which rendered it unfeasible to initially counterbalance the presentation order for the vignettes, it would be an important step in future research to counterbalance the order of presentation to ensure that

this finding is replicable. Nevertheless, in terms of clinical applications, this interaction implies that the way treatment information is framed can influence how it is perceived, which in turn can impact outcomes if adherence is affected. Moving forward, it would be informative to examine if and how the timing of the presentation of the intervention choices effects outcomes as has been previously examined in the context of safety aids for contamination fear (Levy and Radomsky, 2016), for instance comparing effects if the choice were to be presented at the outset of therapy *versus* if it were presented only when a problem arises with ERP.

The current conceptualization that an individual may engage in RS as a means to elicit help with tolerating distress is based on the notion that because problematic RS is repetitive, individuals already possess the information for which they are asking, in the same way that someone who engages in checking behaviour already has the information that they then check again (see also Halldorsson and Salkovskis, 2017a,b; Rachman, 2002, 2012). This conceptualization of RS also relates to previous research suggesting that individuals are more inclined to seek reassurance from trusted or familiar individuals (Kobori and Salkovskis, 2013; Neal and Radomsky, 2015), which suggests that they may be trying to obtain something particular from interacting with someone who knows them. Certainly, trying to elicit support with managing distress is probably one of several functions of interpersonal RS, in addition to the theorized functions of mitigating perceptions of threat, responsibility (i.e. by transferring responsibility to another person), and/or doubt (e.g. Parrish and Radomsky, 2010; Rachman, 2002; Rector *et al.*, 2011; Salkovskis, 1999). Indeed, the conceptualization that a function of RS may be to elicit social support does not compete with theories that RS is also motivated by these other factors – rather, it proposes that individuals are seeking support aimed at tolerating distress, which in the context of OCD may be evoked by perceptions of threat, responsibility, or doubt/uncertainty about general threats (e.g. whether a door is truly locked or something is truly clean) and/or social/relational threats (e.g. whether one is truly liked or competent; Kobori and Salkovskis, 2013; Parrish and Radomsky, 2010; Radomsky *et al.*, 2018; Rector *et al.*, 2011). Support seeking and support provision as presented here and by Halldorsson and Salkovskis (2017a) would differ from other theorized functions in that it may be adaptive rather than maladaptive if its function is to encourage the person to tolerate distress, thereby encouraging corrective learning about threat or one's ability to cope. Given the rather limited literature on problematic RS, it remains to be seen with future research whether individuals may be engaging in RS because of reasons beyond those that have been identified thus far through interview studies (e.g. Parrish and Radomsky, 2010), such as to determine whether the other person's opinion has changed since the last time they sought reassurance. Regardless of what individuals are seeking reassurance about though, support provision would be theorized to be an effective response strategy insofar as it encourages the person to learn to tolerate the distress evoked from perceptions of threat/responsibility/uncertainty, which are theorized to be mechanisms underlying repetitive RS behaviour (e.g. Halldorsson and Salkovskis, 2017a,b; Rachman, 1997, 1998, 2002; Salkovskis, 1985, 1999).

While the strength of the current findings is heightened by the inclusion of data from both participants and partners, this study is not without limitations that merit consideration. Specifically, the sample included in this study was a non-treatment seeking, non-clinical sample. Although undergraduate/non-clinical samples are commonly used for research on clinical phenomena due to the dimensional nature of symptoms such as RS (e.g. Abramowitz *et al.*, 2014), examining how a support-provision intervention is perceived by and functions within a treatment-seeking, clinical sample of individuals who engage in excessive RS would give weight to the implications of these findings. In addition, data were not collected regarding the specific relationships between participants and their partners (e.g. friends, romantic partners, family). It would be informative for future researchers to examine which person(s) within a reassurance seeker's support network are most beneficial to involve in the intervention by addressing their feedback style. Furthermore, this study employed a vignette

design versus a comparison based on experiences. As such, it would be highly informative to explore the effects of reducing accommodation versus providing support in an *in vivo* setting to determine how such perceptions affect RS behaviour and associated affect. To that end, this study focused exclusively on the partners' response, whereas the reassurance seeker's behaviour would naturally be targeted as well during CBT intervention. Accordingly, it would be intriguing and highly relevant for future researchers to conduct larger studies, ideally with clinical samples, examining the effects of altering the reassurance seeker's behaviour towards more adaptive support seeking, which would complement and extend the existing findings from Halldorsson and Salkovskis (2017a). If future clinical studies were conducted comparing each CBT technique to reduce RS, it would be important for the accommodation reduction technique to be introduced in a graded fashion alongside encouragement to resist urges to seek reassurance, as would be typical of ERP-based approaches for other forms of compulsive behaviour (e.g. Abramowitz, 2009).

A primary goal of this study was to determine which intervention style was associated with greater perceived acceptability/adherability. As with other research into the acceptability of CBT interventions for OCD and anxiety, this study's findings support the notion that a cognitive framework and focus on approach-supporting behaviour increases the perceived ability to adhere to an intervention's requirements (e.g. Levy and Radomsky, 2014; Milosevic and Radomsky, 2013; Rachman *et al.*, 2008; Senn and Radomsky, 2015; Sighvatsson and Salkovskis, 2013). Given that the case studies of reducing accommodation suggest that negative reactions may be a barrier to treatment adherence, identifying alternatives that allow the intervention to become more acceptable, such as guiding significant others to provide adaptive support, is an important step towards ensuring that those who would benefit from the intervention are willing to complete it.

While the present study focused on RS in the context of OCD, growing literature suggests that RS occurs transdiagnostically as a problematic behaviour (e.g. Beesdo-Baum *et al.*, 2012; Coyne, 1976; Heerey and Kring, 2007; Salkovskis and Warwick, 1986). There are suggestions that RS shares many features across disorders, including that individuals may engage in both overt/obvious and covert/subtle forms of the behaviour, and that they may share similar motivations to reduce perceptions of general threats (e.g. locks, germs) and/or social/relational threats (e.g. relationship stability, whether one is loved; see Parrish and Radomsky, 2010; Radomsky *et al.*, 2018). Thus, it would be informative for future researchers to examine how individuals with various mental health disorders (e.g. social anxiety disorder) perceive traditional accommodation reduction versus support provision response styles, as well as clinical outcomes of using the different response styles related to long-term symptom reduction.

The current conceptualization of support provision as a component of CBT to decrease RS emphasizes that the partner provide support to encourage the individual cope with distress, anxiety, or uncertainty in the moment, rather than providing reassurance by answering the question posed, or refusing to engage with the individual's question. It would be important for clinicians to spend adequate time with clients/patients and partners to make clear the differences between providing this form of support, and providing reassurance. By providing appropriate support that encourages tolerance of anxiety/discomfort, the partner may help the individual seeking reassurance to stay in the presence of a trigger without removing their anxiety by providing reassurance, thereby maintaining the opportunity to address automatic thoughts, experiment with tolerating distress, or use other strategies to challenge the need for reassurance. Over time, the individual may come to learn that anxiety/uncertainty is tolerable without seeking reassurance, and may reduce their RS behaviour (e.g. Halldorsson and Salkovskis, 2017a,b).

Taken together, the findings from this study suggest that a CBT intervention based on providing support is viewed as more adherable/acceptable to individuals and their partners and is more endorsed than the most commonly used CBT intervention based on removing accommodation to RS. These results may have important implications for CBT practices for addressing

problematic RS, in that they provide evidence that there is an acceptable, CBT alternative to withholding reassurance. Clinically, allowing clients/patients and their partners the opportunity to make choices about the intervention they receive may not only maintain the therapeutic relationship, but also encourages long-term adherence to the therapy and more positive outcomes (e.g. Persons, 2012), which may be particularly important given that intervening against RS has the potential to effect both *intra*personal and *inter*personal changes. Thus, by continuing to improve the acceptability of CBT interventions for traditionally difficult-to-treat behaviour such as RS, it may become possible for clinicians to better help alleviate the negative effects of RS from the lives of those who currently seek and provide reassurance.

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