

Clinical Section

“NOW I KNOW IT COULD HAPPEN, I HAVE TO PREVENT IT”: A CLINICAL STUDY OF THE SPECIFICITY OF INTRUSIVE THOUGHTS AND THE DECISION TO PREVENT HARM

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Abstract. This study uses semi-structured interviews with obsessionals and nonclinical controls to investigate the frequency with which these individuals experience intrusions about possible harm and the frequency with which they then act to prevent that possible harm. The findings suggest that obsessionals do not *generally* experience more frequent intrusions about possible harm than do nonobsessionals, but that obsessionals more frequently experience intrusions in specific situations: obsession-relevant situations and situations they find most problematic. There was found to be a generalized difference between obsessionals and nonobsessionals in terms of frequency of actions taken to prevent potential harm following intrusions in situations that are obsession-relevant and obsession-irrelevant. The findings suggest that the occurrence of intrusions is just one factor influencing obsessional behaviour.

Keywords: Obsessive Compulsive Disorder, intrusive cognitions, decision making, neutralizing behaviour, anxiety.

Introduction

The cognitive theory of Obsessive Compulsive Disorder (OCD) (Salkovskis, 1999) proposes that intrusions of the type described by obsessional patients, which are a key part of their problem, also occur in 80–90% of the general population (Rachman & Silva, 1978). Obsessional patients experience such thoughts more frequently, but they are apparently indistinguishable in terms of content from the intrusions of nonclinicals. Thus, the cognitive theory proposes that obsessional problems arise both because such intrusive thoughts occur and because of the way in which their occurrence and/or content is interpreted as indicating responsibility for harm. There has been considerable work on the way in which obsessional patients interpret or misinterpret intrusive cognitions (Freeston, Ladouceur, Gagnon, & Thibodeau, 1993; Salkovskis et al., in press). However, this focus on cognitive factors associated with the meaning of intrusions has

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resulted in rather less attention being paid to the intrusions themselves. Although it is explicit in the cognitive theory of OCD (Salkovskis, 1985) that certain characteristics of the intrusions such as acceptability and ego-dystonicity will affect the meaning the person attaches to their occurrence, only recently has the impact of the very occurrence of intrusions per se been elaborated. Recent theoretical (Salkovskis, 1998) and empirical work (Forrester, Wilson, & Salkovskis, 1999; Wroe & Salkovskis, in press) on the cognitive theory of OCD suggests that the very occurrence of an intrusion about possible harm in an otherwise responsibility-free situation has the effect of putting the person in the position of having to make a decision that they would not otherwise face (whether or not to seek to prevent the harm that has been suggested by the intrusion). The previous studies suggest that the occurrence of intrusions concerning harm modify otherwise innocuous situations by requiring the person to make a decision about whether or not to prevent the harm “foreseen” by the intrusion. This raises two main questions. First, do obsessional patients more frequently experience intrusions that confront them with the decision whether or not to act to prevent harm than do nonobsessionals? Second, are there differences between obsessional patients and nonobsessionals in the pattern of the occurrence of such intrusions; i.e., do they occur in all situations where harm is possible or are they specific to those situations in which their obsessional problem affects them most? A third, related issue concerns the tendency to act once an intrusive thought about possible harm has occurred. In particular, it is important to investigate whether obsessional situations are more likely than other situations to elicit actions intended to prevent harm, and whether any such tendency is exaggerated in obsessional patients. The present study therefore seeks to investigate, in obsessionals and nonobsessionals, the frequency of occurrence of intrusions about harm in real situations and the frequency of acting to prevent that harm.

Method

Thirty-four obsessional patients completed semi-structured interviews (mean age 29 years – 15 male, 19 female) and 34 nonclinical control participants (mean age 31 years – 18 male, 16 female). There was no difference in the proportions of males and females in each group ($\chi^2 = .53, p = .47$). The nonobsessionals were recruited through Wolfson College, Oxford and included students, office staff and domestic staff. The obsessional patients (19 “ruminators”, 10 “ritualizers” and 5 “other OCD”) were about to take part in treatment trials carried out by the Department of Psychiatry, Warneford Hospital, Oxford. All of them fulfilled DSM-IV criteria for Obsessive Compulsive Disorder. The participants had significantly different scores on scales of obsessionality, anxiety and depression (see Table 1).

Participants were asked to use a visual analogue scale to rate how frequently they experienced intrusions about possible harm in various given situations. Intrusions were defined as follows:

“... intrusive thoughts are thoughts that come into your mind, in the sense that they tend to recur on separate occasions, and may interrupt what you are already thinking or doing. They may occur in the form of words, a mental image, or an impulse (a sudden urge to carry out some action). Such thoughts are usually

Table 1. Mean and standard deviations of the scores of obsessionals and nonclinical controls on measure of psychopathology and age

	Nonobsessionals		Obsessionals		Group comparisons
Age	28.83	[9.27]	30.83	[9.15]	$F[1, 56] = 0.69, p = .41$
MOCI	4.22	[2.75]	14.52	[6.02]	$F[1, 56] = 66.67$ **
OCI	15.04	[11.45]	63.43	[30.98]	$F[1, 56] = 58.59$ **
BDI	5.59	[7.32]	16.48	[9.46]	$F[1, 56] = 23.97$ **
BAI	7.30	[5.11]	19.21	[9.23]	$F[1, 56] = 35.89$ **
STAI-state	33.67	[8.35]	50.17	[12.51]	$F[1, 56] = 32.85$ **
STAI-trait	37.74	[9.11]	55.38	[11.02]	$F[1, 56] = 36.85$ **

** $p < .00001$.

unacceptable in the way that they occur, or are otherwise inappropriate. Research has shown that most people experience such thoughts to a greater or lesser degree.”

The rating scale used was anchored at either end on 0 (“never”) and 10 (“I always have the intrusive thought in the situation”). Twenty of the situations rated were chosen by clinicians and researchers specializing in obsessional disorders as being usually relevant to OCD, (for example, locking the door, having dirty hands) and 11 were situations in which harm could arise but are usually “obsession-irrelevant” (for example, walking in an area where both males and females have been attacked in the recent past, giving a speech). In the situations for which each individual experienced intrusions, he/she was asked to rate how frequently (on having had the intrusive thought) he/she would act to prevent this potential harm – rated from 0 “I never do anything to prevent this” to 10 “I always do something to prevent this”.

In order to conduct semi-idiographic analyses, two situations were identified for each participant; one in which the participant most frequently decided to act to prevent harm (subsequently known as the situation he/she finds “most problematic”); and the other in which the participant least frequently decides to act to prevent harm (subsequently known as the situation he/she finds “least problematic”). If the situation that an individual found to be a particular problem was not included in the situations (as was the case for some obsessionals), he/she was asked to explain it; the interviewer then asked him/her to rate the frequency of occurrence and frequency of action scales. If there was no situation in which the participant most/least frequently decided to act to prevent harm, the individual was asked to state which one he or she found most/least problematic (respectively). Participants were allowed to choose from either list.

Results

1a. Frequency of intrusions

The first analysis investigated any generalized difference in the frequency of occurrence of intrusions about possible harm between obsessionals and nonclinical controls (group

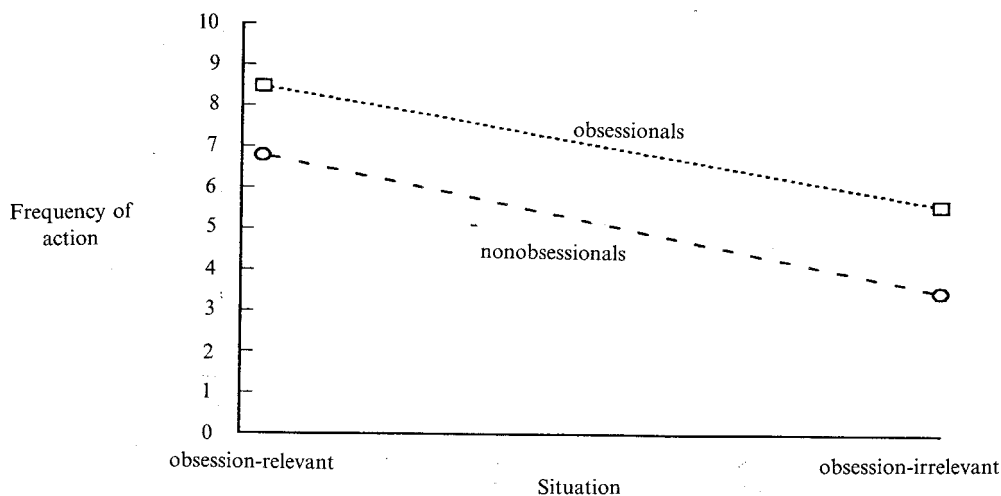
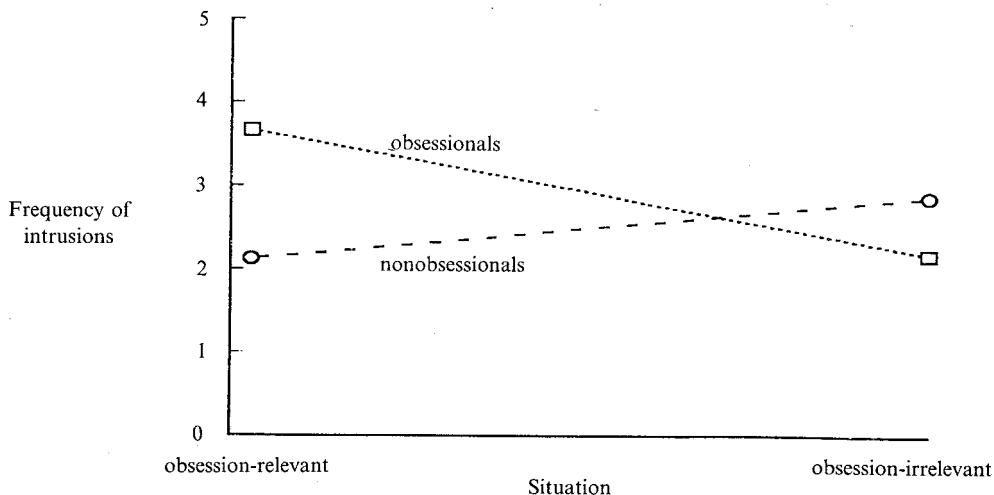


Figure 1. All items, divided into obsession-relevant and obsession-irrelevant. Figure 1a (upper): Mean rating scale scores (0–10) for frequency of intrusion. Figure 1b (lower): Mean rating scale scores (0–10) for frequency of preventative action

effect) and between situations that are obsession-relevant and obsession-irrelevant (situation type effect). For the mean scores see Figure 1a. Analysis of variance showed that there was no main effect of group ($F[1, 65]=1.15, p=.29$), nor of situation type ($F[1, 65]=2.72, p=.10$), but there was a significant interaction ($F[1, 65]=16.92, p=.0001$). *T*-tests demonstrated that obsessives more frequently experience intrusions in *obession-relevant* situations than do nonclinical controls ($t[55]=3.46, p<.001$). However, there was no difference between the two groups in the frequency of intrusions occurring in *obession-irrelevant* situations ($t[65]=0.14, p=.47$). Paired *t*-tests demonstrated that obsessional patients experience more frequent intrusions in *obession-relevant* situations than in *obession-irrelevant* situations ($t[32]=3.35, p<.005$). By

contrast, controls reported experiencing more harm intrusions in obsession-irrelevant than in obsession-relevant situations ($t[33] = -2.36, p < .05$). It seems then that obsessionals do not overall experience more frequent intrusions concerning harm than do nonobsessionals; harm intrusions cluster on obsession-relevant situations for the obsessionals. The higher frequency of harm intrusions in obsession-irrelevant situations for nonobsessionals suggests that, for nonobsessionals, the situations chosen as obsession-irrelevant are more likely to elicit harm intrusions, but that obsessional patients are relatively less sensitive to these than they are to the obsession-relevant situations.

1b. Likelihood of acting following an intrusive thought of harm

Mean likelihood of action to prevent harm after the occurrence of an intrusive thought about harm was calculated by dividing each individual's total ratings for likelihood of action by the number of situations in which an intrusive thought ever occurred. Mean scores are shown in Figure 1b. Analysis of variance demonstrated significant main effects of: group ($F[1, 63] = 10.98, p < .01$), and situation type ($F[1, 62] = 44.71, p < .0001$). The interaction did not approach significance ($F[1, 63] < 1$). These results indicate that obsessionals are more likely to act following the occurrence of any intrusive thought concerning harm than are the nonobsessionals, and that obsession-relevant situations are more likely to elicit action in all individuals.

2. Analyses of semi-idiographic situations

Although situations were designated obsession-relevant or irrelevant, individual obsessional patients' concerns are seldom activated by the full range of apparently "obsession-relevant" situations. The next analysis is therefore of the specific situations that each individual said they find the most and least problematic. These could come from either list. It is interesting to note that for 15 of the 34 obsessionals interviewed there was no intrusive thought concerning harm on which they never decided not to act (i.e., these participants always acted following an intrusive thought). This was significantly different from nonobsessionals, in whom there was always an intrusive thought on which they decided not to act ($\chi^2[1] = 19.25, p < .00001$). Furthermore, 10 out of the 19 obsessionals who did experience intrusions in such situations stated that the reasons for their decision *not* to act was that acting may itself cause further harm. For example, removing glass from a path to prevent someone cutting themselves may result in the participant becoming contaminated from touching the glass. So, in these cases, the decision to "not act" actually involved preventing other potential harm. The analysis conducted next only included the 19 obsessionals for whom there was an item in which the decision to act was rated as less than at the maximum level (i.e., a rating of less than 10 on the 10-point scale). In other words, for these 19 individuals, there was an item about which each individual could be described as "least disturbed", as he/she did not *always* act to prevent harm.

2a. Frequency of intrusions

In the analysis of variance of the rating of likelihood of intrusions concerning harm, the main effect of group was not significant ($F[1, 64] = 3.06, p = .09$). There was a main

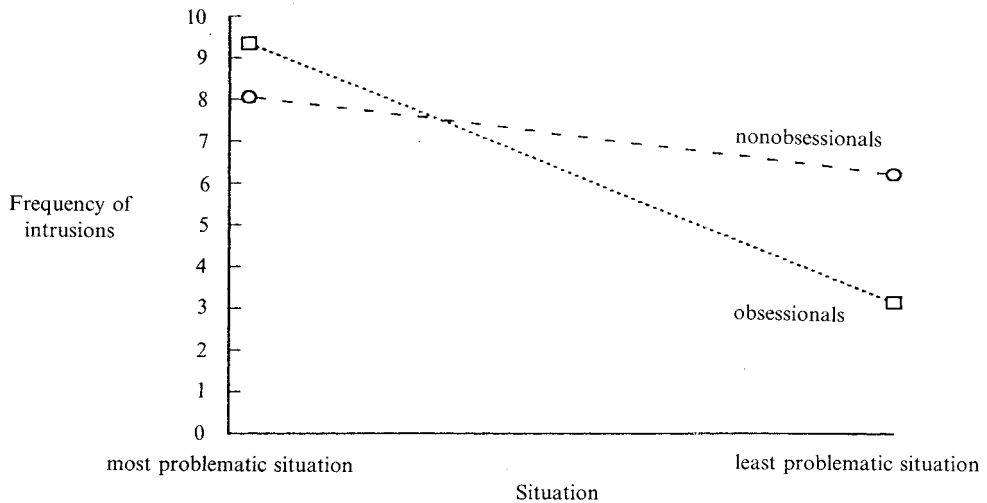


Figure 2. Most and least problematic items only. Mean rating scale scores (0–10) for frequency of intrusion

effect of situation type ($F[1, 64] = 22.32, p < .0001$) that was modified by a group by situation type interaction ($F[1, 64] = 22.32, p < .0001$). *T*-tests demonstrated that obsessionals experience significantly more intrusions than nonobsessionals in the situation they find most problematic ($t[66] = 2.39, p < .05$). However, nonobsessionals are more likely than obsessionals to have intrusions in situations that they find least problematic ($t[64] = 3.79, p < .0001$). Paired *t*-tests demonstrated that obsessionals are significantly more likely to have intrusions in situations that they find most problematic than in situations they find least problematic ($t[31] = 8.53, p < .0001$). This difference is also significant, this time in the same direction, for nonobsessionals ($t[33] = 3.53, p < .005$). Means are shown in Figure 2.

Likelihood of acting to prevent harm was not analysed for these situations because of the possibility of confounding due to the way in which the situations were selected.

Discussion

The results of this study indicate that people suffering from obsessional problems experience more frequent intrusions about possible harm than do nonobsessionals in obsession-relevant situations. Nonobsessionals experience more such intrusions in obsession-irrelevant situations. When the most and least problematic situations are analysed, obsessional patients experience more intrusions for the most problematic situation than controls; for the least problematic situation the opposite was true. However, the results for the likelihood of acting to prevent harm showed a quite different pattern. Obsessionals generally report acting to prevent possible harm more frequently than nonobsessionals. This effect is emphatically *not* influenced by the type of situation (i.e., obsession-relevant vs. obsession-irrelevant). However, obsession-relevant situations are

more likely to be accompanied by actions to prevent harm than obsession-irrelevant situations, again regardless of clinical group.

It is possible to interpret the results as indicating that, in situations in which some slight risk might be involved, obsessionals and nonobsessionals experience a similar level of intrusion, but that these are concentrated differently. Unfortunately for them, obsessionals experience more intrusions in situations in which all of us are particularly likely to act preventatively; in addition, this preventative tendency is further exaggerated in obsessional patients across situations.

These findings indicate that, although obsession-relevant situations are much more likely than other possibly hazardous situations to elicit harm-prevention behaviours in obsessional patients, this is also the case with nonobsessionals. This is despite the fact that there are quite different patterns of the occurrence of intrusions across groups. This pattern of results is particularly interesting in the light of the findings of previous studies (Forrester et al., 1999; Wroe & Salkovskis, in press), in which it was found that the occurrence of intrusions about harm in otherwise innocuous situations has the effect of increasing the rated likelihood of taking preventative action. The present study indicates that such harm-related intrusions are *less* likely in obsessional situations for nonclinical subjects, but are more likely in these situations for obsessional patients. The *occurrence* of such intrusions obviously plays an important role in obsessional disorder. This is particularly relevant to obsessional problems when taken together with the fact that obsession-relevant situations seem to be particularly potent (in both obsessionals and nonobsessionals) as triggers for the decision to act when an intrusion has occurred.

Taking these findings together, it can be hypothesized that, because obsessionals are more likely to attach negative meanings to particular situations, they also become more likely to then experience intrusive thoughts of harm in these specific situations. Such situations are more likely in general to trigger actions intended to prevent harm, whether or not the person suffers from an obsessional problem, at least in part because the situations that are characteristically problematic in OCD tend to imply or actually involve an action on the part of the person (e.g., locking the door). However, obsessional patients are generally more likely to take preventative actions across the range of situations. These factors combine to mean that obsessional patients, who apparently have a proneness to taking actions to prevent harm, are experiencing more frequent intrusions concerning harm in situations that are particularly likely to result in preventative action (which would be described as “compulsive behaviour” when occurring in someone suffering from OCD). Other factors (such as responsibility interpretations made in response to intrusions) will play a role in the development and experience of obsessional disorders. Note that responsibility is defined in the cognitive theory as involving an imperative to prevent harm (Salkovskis et al., 1996). The occurrence of intrusions in the obsessional domain appears to be particularly likely to generate such imperatives.

These findings support the proposal that the occurrence of intrusions play a role in the maintenance of OCD, but also that there are other factors influencing obsessional behaviour. A further study by our group (Wroe & Salkovskis, in press) investigated another possible factor – that is, the perception of agency, i.e., whether not acting to prevent harm is described as involving an omission or a commission.

Acknowledgements

This work was supported by a grant from the Wellcome Trust. The authors would also like to thank all those who took part in this research.

References

- FORRESTER, E., WILSON, C., & SALKOVSKIS, P. M. (1999). The occurrence of intrusive thoughts transforms meaning in ambiguous situations: An experimental study. Manuscript submitted for publication.
- FREESTON, M. H., LADOUCEUR, R., GAGNON, F., & THIBODEAU, N. (1993). Beliefs about obsessional thoughts. *Journal of Psychopathology and Behavioural Assessment*, *15*, 1–21.
- RACHMAN, S. J., & DE SILVA, P. (1978). Abnormal and normal obsessions. *Behaviour Research and Therapy*, *16*, 233–248.
- SALKOVSKIS, P. M. (1985). Obsessional-compulsive problems: A cognitive-behavioural analysis. *Behaviour Research and Therapy*, *23*, 571–583.
- SALKOVSKIS, P. M. (1998). Psychological approaches to the understanding of obsessional problems. In R. P. Swinson, M. M. Antony, S. J. Rachman, & M. A. Richter (Eds.), *Obsessive-compulsive disorder: Theory, research and treatment*. New York: Guilford.
- SALKOVSKIS, P. M. (1999). Understanding and treating obsessive-compulsive disorder. *Behaviour Research and Therapy*, *37*, 29–52.
- SALKOVSKIS, P. M., RACHMAN, S. J., LADOUCEUR, R., FREESTON, M., TAYLOR, S., KYRIOS, M., & SICA, C. (1996). *Defining responsibility in obsessional problems*. Proceedings of the Smith College Women's Room, after the Toronto Cafeteria.
- SALKOVSKIS, P. M., WROE, A., GLEDHILL, A., MORRISON, N., FORRESTER, E., RICHARDS, H. C., REYNOLDS, M., & THORPE, S. (in press). Responsibility attitudes and interpretations are characteristic of obsessive-compulsive disorder. *Behaviour Research and Therapy*.
- WROE, A., & SALKOVSKIS, P. M. (in press). Causing harm and allowing harm: A study of beliefs in obsessional problems. *Behaviour Research and Therapy*.