

Treating Clinically Significant Avoidance of Public Transport Following the London Bombings?

Rachel V. Handley, Paul M. Salkovskis and Anke Ehlers

King's College London, Institute of Psychiatry, London, UK

Background: The present paper describes the cognitive-behavioural approach evolved and adapted to treat survivors of the London bombings experiencing fear and avoidance of public transport (travel phobia). **Method:** Treatment outcomes for a consecutive case series ($N = 11$) are reported. **Results:** All individuals who completed treatment ($N = 10$) had returned to their pre-bombing use of transport and reported minimal symptoms. **Conclusions:** The need for appropriately tailored treatment based on differential diagnosis and formulation and the importance of incorporating skills for treatment of posttraumatic stress disorder are discussed.

Keywords: Specific phobia, posttraumatic stress disorder, travel, treatment, travel phobia.

Introduction

There is good evidence that cognitive behavioural therapy (CBT) is highly effective for people with typical posttraumatic stress disorder (PTSD) precipitated by a range of traumas (National Institute of Clinical Excellence: <http://www.nice.org.uk/guidance/CG26>) including terrorist attacks. However, PTSD is not the only psychological reaction to such acute traumas and there is less evidence regarding the effectiveness of treatment of other clinical problems commonly occurring after trauma either with or without PTSD.

Travel phobic symptoms were a significant consequence of the terrorist attacks on London's public transport system (Handley, Salkovskis, Scragg and Ehlers, in press). Such symptoms occurred both as part of the full syndrome of PTSD and as a separate diagnosis of Specific (Travel) Phobia. A similar pattern has also been noted after road traffic accidents (Ehring, Ehlers and Glucksman, 2006). However, the distinction between PTSD and travel phobia is not necessarily clear-cut, with considerable overlap of symptomatology. A key question is how well travel phobia triggered by these bombings responds to CBT, and to what extent treatment needs to be modified in relation to the distinction between Specific Phobia and PTSD.

The present paper describes the approach developed by the authors to meet the need for treatment following the London bombings in those people reporting clinically significant travel avoidance as their main clinical problem. A consecutive case series is reported.

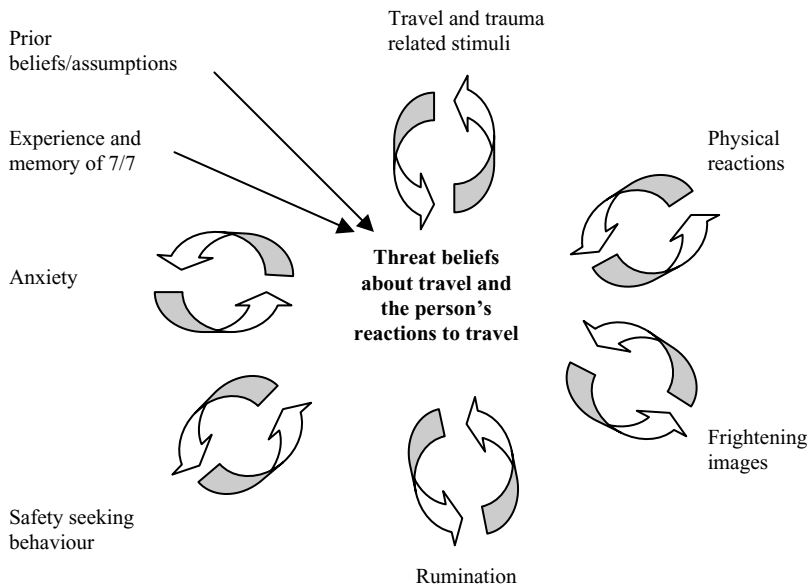


Figure 1. Generic maintenance model of travel phobia

Assessment

There appeared to be a spectrum of responses to the London bombings encompassing travel fears and avoidance. At initial assessment at our clinic, most patients referred primarily for these phobic symptoms also reported symptoms of PTSD to varying degrees (Handley et al., in press).

Treatment

The overlap in phobic and PTSD symptoms raises the important question of whether treatment should follow the principles of CBT for phobias or for PTSD. In the following paper the treatment protocol developed by the authors to address the travel phobia is described, including some elements from *Cognitive Therapy for PTSD* (Ehlers, Clark, Hackmann, McManus and Fennel, 2005) and the circumstances under which the full PTSD treatment protocol was used.

Treating travel phobia in trauma survivors: preparation for dealing with phobic fear

Formulation. Drawing on a specific recent episode of anxiety in the presence or anticipation of the feared transport situation, the patient and therapist developed a shared formulation of the processes maintaining the travel phobia based on the CBT model of maintenance of anxiety. A generic model of the type used to give an idiosyncratic patient model is shown in Figure 1.

Psychoeducation about anxiety and anxiety responses. Threatening beliefs about the course and consequences of anxiety symptoms were explored and the normal symptoms and course of anxiety were discussed and explained.

Formulating and understanding safety-seeking behaviours. Socratic questioning was used to determine the function and effect of the behaviours individuals employed in travel situations to keep themselves safe. The patient's understanding of the paradoxical effect of safety-seeking behaviours in reinforcing threat beliefs and consequently increasing travel anxiety was facilitated through the use of analogies and stories. Patients were then encouraged to begin to reverse these behaviours within the framework of behavioural experiments.

Probabilities of feared outcome. Where patients had specific fears about being harmed by further bombings on the underground it was often useful to calculate the mathematical probability of this happening and to compare it to the patient's estimated probability.

Panic work. Panic work was completed where threat beliefs included catastrophic misinterpretations of the physical symptoms of anxiety. This work followed Clark's cognitive model of panic (Clark, 1986).

Exposure: stimulus discrimination and testing beliefs

A programme of exposure presented as behavioural experiments with a cognitive rationale was agreed with the patient, who had at this point come to entertain the belief more readily that avoiding their feared situations or trying to make themselves safe within them might actually be perpetuating their anxiety. In vivo sessions commonly took place over 3 hours during which patients were exposed to their feared travel situations whilst engaging in the cognitive-behavioural interventions described below according to their personalized formulations.

Stimulus discrimination. As in *Cognitive Therapy for PTSD* (Ehlers et al., 2005), stimulus discrimination is useful with individuals experiencing travel phobia with traumatic onset, as one of the factors maintaining the phobia may be images or other intrusive memories of the trauma including a "felt sense" of danger. First, the therapist and patient together identify sensory stimuli that provoke the intrusive trauma memories and negative affect, and second, they work together to break the link between the innocuous trigger and the memory.

Once identified, the link between the trigger and the memory can be extinguished by bringing into awareness the knowledge that they are responding to a memory, not current reality, and by focusing on the differences between the "then" and the "now". It is often necessary to identify the triggers in vivo, as patients may be entirely unaware of them and may simply experience a sense of heightened arousal that appears to be out of the blue and out of their control. Similarly, in vivo discrimination training for triggers on transport is very useful.

Behavioural experiments. Threat beliefs in travel phobia can be grouped into two categories: beliefs that "this travel situation will harm me", and beliefs that "my response to this travel situation will harm me". Behavioural experiments designed to test the specific and idiosyncratic beliefs central to each patient's travel phobia are key to changing these beliefs and enabling them to overcome their fears. Carrying out these experiments in vivo with the therapist is particularly effective as it allows clear observation of the behaviours driven by the beliefs, which in turn makes it easier to identify and test the problematic cognitions.

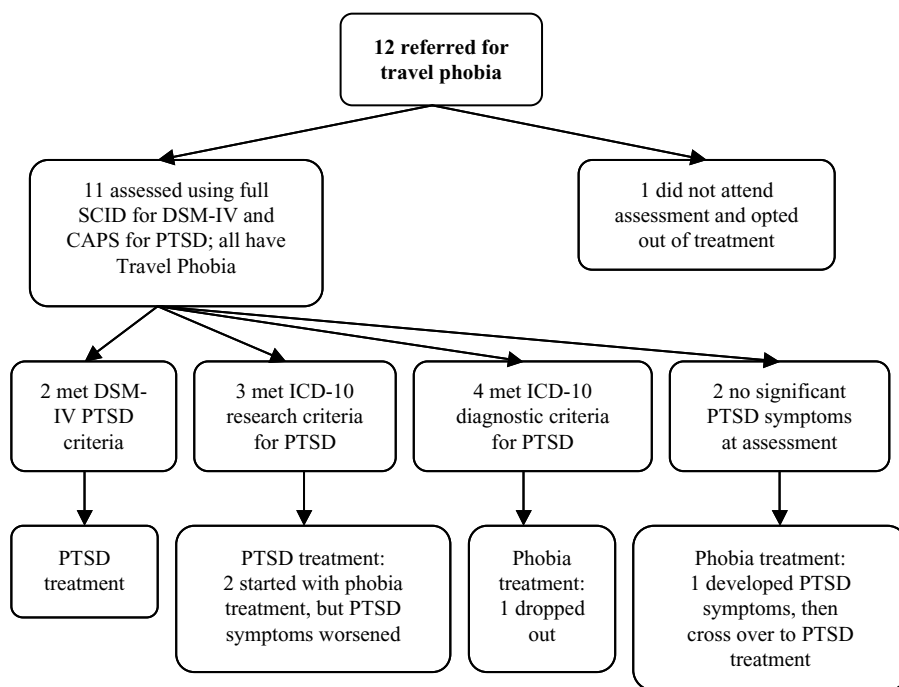


Figure 2. Overview of presentations and treatment of patients referred for travel phobia

Safety-seeking behaviours interweave. Throughout the in vivo work care was taken to notice the patients' safety-seeking behaviours and to encourage them to drop or reverse these behaviours.

The need to include further elements of PTSD treatment

The decision whether to include further elements of PTSD treatment in the therapy was based on the presenting symptoms and theoretical considerations. Following Ehlers and Clark's (2000) model of PTSD it was expected that key indicators for the appropriateness of a PTSD treatment protocol would be: "nowness" of trauma memories and intensity of affect; poorly elaborated memory of the trauma; emotional numbing, and generalized negative meanings of the trauma. When the above indicators were present, treatment followed the *Cognitive Therapy for PTSD* protocol (Ehlers et al., 2005), including focused work on the trauma memory.

Development of the final protocol in the case series

Figure 2 shows the treatment pathways from referral to final treatment protocol. Initially, the travel phobia protocol described above was employed to treat two individuals with travel phobia who also met ICD-10 criteria for PTSD. However, as treatment progressed (especially during in vivo work), they reported more PTSD symptoms (especially re-experiencing symptoms). From then onwards, their treatment was informed by the *Cognitive Therapy for PTSD* protocol. For

later referrals meeting these criteria, the PTSD protocol was employed as earlier experience had suggested this was the more appropriate treatment. Overall, the travel phobia protocol alone did not seem sufficient to treat the majority of patients since three patients in total showed an increase in PTSD symptoms during this protocol. Of the 10 patients who completed treatment, 6 patients received *Cognitive Therapy for PTSD* and only 4 were treated using CBT for phobic avoidance alone.

Outcome

Treatment outcome was measured by clinical report and by using the following measures: the Posttraumatic Diagnostic Scale (PDS; Foa, Cashman, Jaycox and Perry, 1997), the Beck Anxiety Inventory (BAI; Beck, Epstein, Brown and Steer, 1988), and simple self-report measures of levels of fear and avoidance (0–10 scales). Further measures were created to record phobic severity and safety-seeking behaviours employed in the feared transport situation. These measures are described more fully in the extended report linked to the present paper. The minimum score on the phobic severity scale was 0 and the maximum was 36. The minimum score on the safety-seeking behaviours questionnaire was 0 and the maximum was 36.

Table 1 summarizes the treatment outcome on each of these measures. All patients completing treatment returned to regular use of public transport (no remaining avoidance) and reported reduced or absent anxiety. All patients treated for PTSD no longer met criteria for PTSD at the end of treatment, and their symptom score on the PDS was in the “normal” range. One patient dropped out of treatment.

Conclusion

The current paper has described the treatment of a small consecutive case series of individuals referred for clinically significant travel phobia following the London bombings. The case series showed that some patients develop straightforward phobias after trauma and can be effectively treated with CBT for phobia.

However, some of those referred were found to meet broader symptoms of PTSD at clinical assessment. In others, such symptoms emerged in the course of initial treatment for travel phobia, most commonly when they exposed themselves to previously avoided memory triggers. Overall, patients with symptoms meeting ICD-10 research criteria for PTSD and/or with a high PDS score (more than 20) seemed to be more appropriately treated using CBT for PTSD rather than CBT for phobia alone. Interestingly, the same cut-off has been found to be useful in predicting chronic PTSD from initial PDS symptoms (Ehring, Ehlers and Glucksman, 2008), and as an indicator of the need for early intervention. Treatment tailored according to the appropriate formulation of the problem (i.e. CBT for PTSD or CBT for phobic avoidance alone) was effective.

Given the small sample size, these preliminary findings require validation from further large scale studies. However, this case series illustrates the necessity for individual case formulation and competence in recognizing and treating PTSD symptoms when working with patients with phobic avoidance following a traumatic event such as a terrorist attack.

Table 1. Treatment outcomes

Diagnosis	Patient	No. of sessions	PDS		BAI		Travel fear (0-10)		Avoidance (0-10)		Phobic severity		Safety behaviours		
			Before	End	Before	End	Before	End	Before	End	Before	End	Before	End	
			Rx	Rx	Rx	Rx	Rx	Rx	Rx	Rx	Rx	Rx	Rx	Rx	
Travel phobia	1	3	9	1	4	0	7	3	5	0	17	2	0	0	
	2**	15	29	8	4	14	10	5	10	0	36	13	23	18	
Travel phobia and ICD-10-D PTSD	3	6	17	0	23	0	7	2	10	0	33	10	18	5	
	4	5	14	0	2	0	5	1	10	0	18	1	9	1	
6*	5	8	7	1	9	2	4	0	3	0	18	1	14	12	
	7	7	25	30	35	12	Measures not developed at start of treatment and Depression initial focus of treatment								
Travel phobia and ICD-10-R PTSD	7**	14	27	11	36	17	Measures not developed at start of treatment and PTSD became appropriate treatment protocol								
	8**	17	21	9	12	8	10	4	10	3	23	5	15	15	
DSM-IV PTSD	9	10	10	4	10	10	PTSD measures only								
	10	15	18	6	28	5	PTSD measures only								
	11	8	12	1	5	0	PTSD measures only								

* did not complete treatment.

** cross over in symptom presentation and treatment modality from travel phobia to PTSD during treatment.

Rx: Treatment.

Acknowledgements

PS received support from the NIHR Biomedical Research Centre at South London and Maudsley NHS Foundation Trust/Institute of Psychiatry (King's College London). AE and RH are funded by the Wellcome Trust (grant 0069777). The authors are grateful to Ann Hackmann and the PTSD group at the Centre for Anxiety Disorders and Trauma for their clinical supervision and support with this work.

References

- Beck, A. T., Epstein, N., Brown, G. and Steer, R. A.** (1988). An inventory for measuring clinical anxiety: psychometric properties. *Journal of Consulting and Clinical Psychology*, *56*, 893–897.
- Clark, D. M.** (1986). A cognitive approach to panic. *Behaviour Research and Therapy*, *24*, 461–470.
- Ehlers, A. and Clark, D. M.** (2000). A cognitive model of posttraumatic stress disorder. *Behaviour Research and Therapy*, *38*, 319–345.
- Ehlers, A., Clark, D. M., Hackmann, A., McManus, F. and Fennell, M.** (2005). Cognitive therapy for PTSD: development and evaluation. *Behaviour Research and Therapy*, *43*, 413–31.
- Ehring, T., Ehlers, A. and Glucksman, E.** (2008). Do cognitive models help in predicting posttraumatic stress disorder, phobia and depression after trauma? *Journal of Consulting and Clinical Psychology*, *76*, 219–230.
- Ehring, T., Ehlers, A. and Glucksman, E.** (2006). Contribution of cognitive factors to the prediction of posttraumatic stress disorder, phobia and depression after road traffic accidents. *Behaviour Research and Therapy*, *44*, 1699–1716.
- Foa, E. B., Cashman, L., Jaycox, L. and Perry, K.** (1997). The validation of a self-report measure of posttraumatic stress disorder: the posttraumatic diagnostic scale. *Psychological Assessment*, *9*, 445–451.
- Handley, R. V., Salkovskis, P. M., Scragg, P. and Ehlers, A.** (in press). Clinically significant avoidance of public transport following the London bombings: travel phobia or subclinical posttraumatic stress disorder? *J. Anxiety Disorders*.