

Post-traumatic Cognitions Inventory – child version (cPTCI)

Research Notes

Richard Meiser-Stedman, Patrick Smith, William Yule, Tim Dalgleish

The measure

The cPTCI was designed to be a child and adolescent version of the adult PTCI (Foa et al., 1999), a measure of negative post-traumatic appraisals that has been shown to closely relate to adult post-traumatic stress.

The initial version of the cPTCI comprised items from the adult PTCI amended for use with children, as well as additional items deemed suitable for children that would also address the key concepts that make up the adult PTCI. These additional items were mainly inspired by other research that has been aimed at testing Ehlers and Clark's (2000) cognitive models of PTSD in adults (e.g. Dunmore et al., 1999; Steil & Ehlers, 2000). One item (item 14, "I feel like a robot sometimes") was not translated from the adult PTCI to the cPTCI as it was not felt that an appropriate children version of this item could be devised. This initial version of the cPTCI (i.e. before being standardised) comprised a total of 41 items.

Samples used to devise the cPTCI

The cPTCI was standardised using samples from two studies. Study 1 was a cross-sectional study of school children aged 11-17 years (n=243), while Study 2 was a prospective study of 10-16 year olds exposed to road traffic accidents or assaults (n=65). For Study 1, the cPTCI was completed with regards to the most frightening event the child or adolescent had experienced in the previous two months. For study 2, the cPTCI was completed at the 6-month follow up assessment with regards to the assault or RTA they had experienced.

Component structure of the cPTCI

The 41 items of the cPTCI were submitted to a principal components analysis using the larger data set obtained from Study 1. Examination of the scree plot implied a two component solution. The analysis was run again with two components and subjected to varimax rotation. The first component accounted for 32.9% of variance, while the second component accounted for an additional 6.2% of variance. Items that were found to load more than .50 on a given component, and less than .40 on the other component were retained within the questionnaire and subjected to further analysis.

Inspection of the two proposed components revealed meaningful groupings; the first component, comprising 13 items, corresponded to a sense of disturbing and permanent change since the trauma, while the second component, comprising 12 items, corresponded to a sense of being a feeble person in a scary world. A third principal components analysis was run with the 25 retained items, and again subjected to varimax rotation. In this solution, the first component accounted for 37.3% of variance, while the second component accounted for an additional 9.2% of variance.

In order to further verify this solution, the analysis was performed again using the data from Study 2. Only a few of Study 2 participants' items showed substantial loadings for the component other than that to which they had been allocated based on the data from Study 1 (see table below for component loadings for each data set).

Internal reliability

The internal reliability of these components was then assessed. Using the data obtained from Study 1 (the much larger sample) the Cronbach's alpha coefficients for the "disturbing and permanent change" component and for the "feeble person in a scary world" component were .91 and .86 respectively. Using the data obtained from Study 2 at 6 month follow-up, the Cronbach's alpha coefficients for the "disturbing and permanent change" component and for the "feeble person in a scary world" component were .88 and .88 respectively.

Within the sample taken from Study 1, total scores for each component were found to be significantly correlated ($r=.64$, $n=223$, $p<.001$). Both the "disturbing and permanent change" component and the "feeble person in a scary world" component were significantly correlated with the total score for the revised, 25 item questionnaire ($r=.88$, $n=223$, $p<.001$, and $r=.93$, $n=223$, $p<.001$, respectively).

Correlations with post-traumatic stress symptomatology

Whether each component of the cPTCI was related to post-traumatic stress symptomatology was assessed using the Revised Impact of Event Scale, child version (RIES-C; Smith et al., 2003). In the Study 1 sample, RIES-C scores were significantly correlated with both the "disturbing and permanent change" component of the cPTCI ($r=.50$, $n=197$, $p<.0001$), and with the "feeble person in a scary world" component ($r=.60$, $n=197$, $p<.0001$). In the Study 2 sample, RIES-C scores were significantly correlated with both the "disturbing and permanent change" component of the cPTCI ($r=.68$, $n=65$, $p<.0001$), and with the "feeble person in a scary world" component ($r=.67$, $n=65$, $p<.0001$).

References

- Dunmore, E., Clark, D. M., & Ehlers, A. (1999). Cognitive factors involved in the onset and maintenance of posttraumatic stress disorder (PTSD) after physical or sexual assault. *Behaviour Research and Therapy*, *37*, 809-829.
- Ehlers, A., & Clark, D. M. (2000). A cognitive model of posttraumatic stress disorder. *Behaviour Research and Therapy*, *38*, 319-345.
- Foa, E. B., Ehlers, A., Clark, D. M., Tolin, D. F., & Orsillo, S. M. (1999). The Posttraumatic Cognitions Inventory (PTCI): Development and validation. *Psychological Assessment*, *11*, 303-314.
- Smith, P., Perrin, S., Dyregrov, A., & Yule, W. (2003). Principal components analysis of the impact of event scale with children in war. *Personality and individual differences*, *34*, 315-322.
- Steil, R., & Ehlers, A. (2000). Dysfunctional meaning of posttraumatic intrusions in chronic PTSD. *Behaviour Research and Therapy*, *38*, 537-58.

Component loadings of cPTCI for Study 1 and Study 2 participants

Item	Component 1	Component 2
	S1/S2	S1/S2
<i>“Disturbing and permanent change” component</i>		
15. I feel like I am a different person since the frightening event.	.56/.61	
23. I used to be a happy person but now I am always sad.	.57/.49	
25. I will never be able to have normal feelings again.	.70/.82	
26. I’m scared that I’ll get so angry that I’ll break something or hurt someone.	.62/.55	
33. My life has been destroyed by the frightening event.	.79/.57	
34. My reactions since the frightening event mean I have changed for the worse.	.76/.74	
35. My reactions since the frightening event mean I will never get over it.	.77/.63	
36. My reactions since the frightening event mean something is seriously wrong with me.	.70/.79	
37. My reactions since the frightening event show that I must be going crazy.	.63/.74	
39. Not being able to get over all my fears means that I am a failure.	.57/.61	
40. Nothing good can happen to me anymore.	.59/.49	
43. Something terrible will happen if I do not try to control my thoughts about the frightening event.	.59/.64	
45. The frightening event has changed me forever.	.67/.54	
<i>“Feeble person in a scary world” component</i>		
2. Anyone could hurt me.		.66/.67
3. Bad things always happen.		.68/.58
4. Everyone lets me down.		.65/.61
5. I am a coward.		.57/.68
8. I am no good.		.52/.60
9. I can’t cope when things get tough.		.58/.80
10. I can’t stop bad things from happening to me.		.67/.53
13. I don’t trust people.		.69/.67
18. I have to be really careful because something bad could happen.		.67/.50
19. I have to watch out for danger all the time.		.53/.54
31. Life is not fair.		.51/.44
41. Small things upset me.		.55/.69

Note. cPTCI = child version of Post-Traumatic Cognitions Inventory; S1 = Sample from Study 1; S2 = Sample from Study 2.