Cognitive processes mediate the post-traumatic stress trajectory in adolescents

By Jessica K. Edwards

A new study has shown that cognitive processes shape the early reactions of children and adolescents to traumatic stressors, and mediate the transition to persistent and clinically significant post-traumatic stress symptoms (PTSS). Meiser-Stedman and colleagues conducted a prospective, longitudinal study of >200 youths aged 8-17 years who had attended hospital after experiencing a single trauma. They made assessments at 2-4 weeks and 2 months post-trauma, using structured interviews and self-report questionnaires to categorize each patient as being on a resilient, recovery or persistent PTSS trajectory.

The data showed that cognitive processes at the 2-4 week assessment were the most powerful predictors of the onset and maintenance of PTSS. The onset of acute, clinically significant PTSS was associated with perceived threat, data-driven processing[1] and pain, while the maintenance or persistence of PTSS at the 2-month follow-up was associated with more poorly elaborated, sensory-based trauma memories, persistent dissociation, trauma-related rumination and negative appraisals of the trauma.

Overall, the researchers found that very early reactions to trauma in youths may be conceived of as a common reaction to the trauma and that in many cases, such reactions will diminish over the coming weeks. The presence of negative appraisals of the trauma and its sequelae, however, disrupts these recovery processes. Given the novelty of these findings, the researchers concede that more research into the mechanisms of PTSS is needed before any strong recommendations regarding clinical interventions are made. They do suggest, however, that their data might support targeting negative appraisals in the psychological prevention and treatment of post-traumatic stress disorder. In addition, they propose that there is a need to better recognise and address ruminative thinking styles (rather than only avoidance) in youths affected by trauma.

References

Meiser-Stedman, R., McKinnon, A., Dixon, C., Boyle, A., Smith, P. and Dalgleish, T. et al. (2019), A core role for cognitive processes in the acute onset and maintenance of post-traumatic stress in children and adolescents. J. Child Psychol. Psychiatr. 60:875-884. doi: 10.1111/jcpp.13054.

Further reading

[1]Ehlers, A. et al. (2000), A cognitive model of posttraumatic stress disorder. Behav. Res. Ther. 38:319-345. doi: 10.1016/S0005-7967(99)00123-0.

Glossary

Data-driven processing: A sensory analysis that focuses on incoming sensory data, which is then transmitted to the brain and processed to form a visual experience. This form of processing requires no previous knowledge or learning; as such, it is also known as bottom-up processing, as opposed to top-down (conceptual) processing. In the context of trauma, data-driven processing refers to the processing of the sensory impression of the traumatic situation and the perceptual characteristics, rather than the meaning of the event. Here, data-driven processing is thought to result in a poorly elaborated, perceptually encoded memory trace, whereas top-down processing will result in contextualized memory representations.[1]

Dissociation: A feeling of being disconnected from a sensory experience, such as a traumatic event, or from one's self or personal history.

Rumination: A tendency to repetitively think about the causes, situational factors and consequences of a negative emotional experience or trauma.