Dissociative Subtype of PTSD (http://www.ptsd.va.gov/professional/PTSD-overview/Dissociative\_Subtype\_of\_PTSD.asp)

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The role of dissociation as the most direct defense against overwhelming traumatic experience was first documented in the seminal work of Pierre Janet. Recent research evaluating the relationship between Posttraumatic Stress Disorder (PTSD) and dissociation has suggested that there is a dissociative subtype of PTSD, defined primarily by symptoms of derealization (i.e., feeling as if the world is not real) and depersonalization (i.e., feeling as if oneself is not real). Confrontation with overwhelming experience from which actual escape is not possible, such as childhood abuse, torture, as well as war trauma challenges the individual to find an escape from the external environment as well as their internal distress and arousal when no escape is possible. States of depersonalization and derealization provide striking examples of how consciousness can be altered to accommodate overwhelming experience that allows the person to continue functioning under fierce conditions.

* An ‘out-of-body’  or **depersonalization** experience during which individuals often see themselves observing their own body from above has the capacity to create the perception that ‘this is not happening to me’ and is typically accompanied by an attenuation of the emotional experience.
* Similarly, states of **derealization** during which individuals experience that ‘things are not real; it is just a dream’ create the perception that ‘this is not really happening to me’ and are often associated with the experience of decreased emotional intensity.

The addition of a dissociative subtype to the PTSD diagnosis is expected to further advance research examining the etiology, epidemiology, neurobiology, and treatment response of this subtype and facilitate the search for biomarkers of PTSD.

Rationale

The recognition of a dissociative subtype of PTSD as part of the *DSM-5* PTSD diagnosis was based on three converging lines of research: (1) symptom assessments, (2) treatment outcomes, and (3) psychobiological studies.  Even though dissociative symptoms such as flashbacks and psychogenic amnesia are included as part of the core PTSD symptoms, evidence suggests that a subgroup of PTSD patients exhibits additional symptoms of dissociation, including depersonalization and derealization, thus warranting a subtype of PTSD specifically focusing on these two symptoms. Recognizing a dissociative subtype of PTSD has the potential to improve the assessment and treatment outcome of PTSD.

Evidence

The addition of a dissociative subtype of PTSD in the upcoming DSM-5 was based on three lines of evidence:

1. Several studies using latent class, taxometric, epidemiological, and confirmatory factor analyses conducted on PTSD symptom endorsements collected from Veteran and civilian PTSD samples indicated that a subgroup of individuals (roughly 15 - 30%) suffering from PTSD reported symptoms of depersonalization and derealization (1-3). Individuals with the dissociative subtype were more likely: to be male, have experienced repeated traumatization and early adverse experiences, have comorbid psychiatric disorders, and evidenced greater suicidality and functional impairment (4). The subtype also replicated cross-culturally.
2. Neurobiological evidence suggests depersonalization and derealization responses in PTSD are distinct from re-experiencing/hyperarousal reactivity.  Individuals who re-experienced their traumatic memory and showed concomitant psychophysiological hyperarousal exhibited *reduced* activation in the medial prefrontal- and the rostral anterior cingulate cortex and increased amygdala reactivity. Reliving responses are, therefore, thought to be mediated by failure of prefrontal inhibition or top-down control of limbic regions.  In contrast, the group who exhibited symptoms of depersonalization and derealization showed increased activation in the rostral anterior cingulate cortex and the medial prefrontal cortex. Depersonalization/derealization responses are suggested to be mediated by midline prefrontal inhibition of the limbic regions (5,6).
3. Early evidence suggests that symptoms of depersonalization and derealization in PTSD are relevant to treatment decisions in PTSD (reviewed in Lanius et al., 2012;5). Individuals with PTSD who exhibited symptoms of depersonalization and derealization tended to respond better to treatments that included cognitive restructuring and skills training in affective and interpersonal regulation in addition to exposure-based therapies (7,8). Additional research is needed to more fully evaluate the effects of depersonalization and derealization on treatment response.

Assessment

The Clinician-Administered PTSD Scale (CAPS) includes items assessing depersonalization ("Have there been times when you felt as if you were outside of your body, watching yourself as if you were another person?") and derealization ("Have there been times when things going on around you seemed unreal or very strange and unfamiliar?"). In addition, there are several self-report rating scales that assess dissociative symptomatology. These include the Dissociative Experiences Scale, the Multiscale Dissociation Inventory, the Traumatic Dissociation Scale, and the Stanford Acute Stress Reaction Questionnaire. Additional interviews and scales specific to the dissociative subtype are currently under development.

Associated features and risks of the dissociative subtype

As compared to individuals with PTSD alone, patients with a diagnosis of the dissociative subtype of PTSD showed:

* Repeated traumatization and early adverse experience prior to onset of PTSD
* Increased psychiatric comorbidity, in particular specific phobia and borderline and avoidant personality disorders among women, but not men
* Increased functional impairment
* Increased suicidality (including suicidal ideation, plans, and attempts)

Treatment concerns

Treatment studies specifically designed to examine clinical outcomes of psychological and pharmacological treatment of PTSD in those with versus without the dissociative subtype are needed. However, we do know that individuals with dissociative PTSD may require treatments designed to directly reduce depersonalization and derealization. For such individuals, exposure treatment can lead to further dissociation and inhibition of affective response, rather than the goal of cognitive behavioural/exposure therapy, which is desensitization and cognitive restructuring.

There is preliminary evidence that relative to exposure-based therapies alone, individuals with PTSD who exhibited symptoms of depersonalization and derealization responded better to treatments that also included cognitive restructuring and skills training in affective and interpersonal regulation (5,7,8).

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References

1. Steuwe, C., Lanius, R. A., & Frewen, P. A. (2012). The role of dissociation in civilian posttraumatic stress disorder: Evidence for a dissociative subtype by latent class and confirmatory factor analysis. *Depression and Anxiety, 29,* 689-700. doi: 10.1002/da.21944
2. Wolf, E. J., Lunney, C. A., Miller, M. W., Resick, P. A., Friedman, M. J., & Schnurr, P. P. (2012). The dissociative subtype of PTSD: A replication and extension. *Depression and Anxiety, 29,* 679-688. doi: 10.1002/da.21946
3. Wolf, E. J., Miller, M. W., Reardon, A. F., Ryabchenko, K. A., Castillo, D., & Freund, R. (2012). A latent class analysis of dissociation and posttraumatic stress disorder: Evidence for a dissociative subtype. [Research Support, N.I.H., Extramural Research Support, U.S. Gov't, Non-P.H.S.]. *Archives of General Psychiatry, 69,* 698-705. doi: 10.1001/archgenpsychiatry.2011.1574
4. Stein, D. J., Koenen, K. C., Friedman, M. J., Hill, E., McLaughlin, K. A., Petukhova, M., Ruscio, A. M., Shahly, C., Spiegel, D., Borges, G., Bunting, B., Calsa-de-Almeida, J. M., de Girolamo, G., Demyttenaere, K., Florescu, S., Haro, J. M., Karam, E. G., Kovess-Masfety, V., Lee, S., Matshinger, H., Mladenova, M., Posada-Villa, J., Tachimori, H., Viana, M. C., & Kessler, R. C. (2013). *Dissociation in posttraumatic stress disorder: Evidence from the world mental health surveys., 73,* 302-312. doi: 10.1016/j.biopsych.2012.08.022
5. Lanius, R. A., Brand, B., Vermetten, E., Frewen, P. A., & Spiegel, D. (2012). The dissociative subtype of posttraumatic stress disorder: rationale, clinical and neurobiological evidence, and implications. *Depression and Anxiety, 29*, 1-8. doi: 10.1002/da.21889
6. Lanius, R. A., Vermetten, E., Loewenstein, R. J., Brand, B., Schmahl, C., Bremner, J. D., & Spiegel, D. (2010). Emotion modulation in PTSD: Clinical and neurobiological evidence for a dissociative subtype. *American Journal of Psychiatry, 167,* 640-647. doi: 10.1176/appi.ajp.2009.09081168
7. Cloitre, M., Petkova, E., Wang, J., & Lu Lassell, F. (2012). An examination of the influence of a sequential treatment on the course and impact of dissociation among women with PTSD related to childhood abuse. *Depression and Anxiety, 29,* 709-717. doi: 10.1002/da.21920
8. Resick, P. A., Suvak, M. K., Johnides, B. D., Mitchell, K. S., & Iverson, K. M. (2012). The impact of dissociation on PTSD treatment with cognitive processing therapy. *Depression and Anxiety, 29,* 718-730. doi: 10.1002/da.21938