Dissociative Amnesia (Psychogenic Amnesia) — Causes and Treatment

Dissociative dementia is a type of dissociative disorder characterized by temporary memory gap achieved to compensate any stressful or traumatic event of life. It involves an incapability to recall personal information, usually of a trauma or stressful event consciously. The forgotten information remains in conscious part of mind which can influence the behavior of the patient. Additionally, dissociative amnesia is more common in patients with other comorbid psychiatric illness such as depression and conversion disorder. Dissociative amnesia might be generalized or localized or continuous or systematized. The most common type is the localized loss of certain life events that are usually traumatic and unpleasant.

Overview of Dissociative Amnesia

Dissociative amnesia can be defined as a common dissociative disorder with one or more episodes of forgetfulness of important personal information generally of a traumatic or stressful nature.
The most important causes of this dissociation to happen are trauma and stress. People who suffer from dissociative amnesia usually have a **loss of autobiographical memory and only certain past experiences**. These stressful and traumatic experiences can be natural disasters, death of a loved one, military combat, rape, sexual abuse, serious financial troubles or internal conflict. The patients are survivors of these events.

A severe form of dissociative amnesia that is also characterized by purposeful traveling away from one’s home and surroundings is known as **dissociative fugue**. A dissociative fugue can be also associated with **complete loss of one’s identity and the creation of a completely new identity (derealization)**.

### Epidemiology of Dissociative Amnesia

The **exact prevalence of dissociative amnesia in the community is unknown**, but all dissociative disorders collectively are identified in up to 1.8% of the general community. Approximately 10% of psychiatric inpatients are diagnosed with some form of dissociative disorders, usually dissociative amnesia.

Nowadays, it is believed that amnesia in this group of patients is due to dissociation with their own real personal event. Dissociation is believed to happen **due to a severe traumatic event, or tremendous emotional stress**. The main risk factors for dissociative amnesia in the general population are **drug abuse**, **alcoholism**, female gender, a career in prostitution or being an exotic dancer. The traumatic experience or stressful event might not be recalled consciously but it can influence the behavior by an aversion to specific action, e.g. women raped in an elevator may show aversion to climb an elevator.

Additionally, patients with conversion disorders are more likely to suffer from dissociative amnesia due to the similar pathogenesis, i.e. experiencing severe stressor or trauma.

### Clinical Features of Dissociative Amnesia

Dissociative amnesia can be localized or generalized:

1. **Localized amnesia** is defined as the **failure to recall events in a certain period** and is the most common type of dissociative amnesia.
2. **Generalized amnesia** is characterized by the **complete loss of one’s life history**. Generalized amnesia might be associated with the loss of previous common-sense knowledge about the world, i.e. semantic amnesia, or the loss of well-learned skills.

**Localized amnesia** might be difficult to remark because the onset is usually insidious and the amount of information lost might seem trivial at first. On the other hand, generalized amnesia is characterized by dramatic and sudden onset.

**Generalized amnesia** is more common in veterans and survivors of natural disastrous events, whereas, localized amnesia is more commonly seen in **rape victims or victims of physical or emotional abuse**. The sudden recall of the lost memories can overwhelm the patient and is associated with an increased risk of suicide.

### Diagnostic Criteria for Dissociative Amnesia

The **DSM-5** criteria for the diagnosis of dissociative amnesia consist of four main points.
1. The patient should be **unable to recall autobiographical information** that is usually of a traumatic nature and that the patient is expected to remember and should recall easily.

2. The patient's **social, occupational or academic life should be affected** by this impairment.

3. Alcohol abuse, drug dependency, partial complex seizures, transient global amnesia, or traumatic brain injuries should be reliably excluded.

4. And the final criterion is that dissociative amnesia should better fit the clinical picture of the patient compared to other psychiatric disorders such as posttraumatic stress disorder, acute stress disorder, somatization disorder, malingering, or dissociative identity disorder.

Patients with dissociative amnesia should be **sub-classified into with fugue or without fugue** depending on whether the patient shows fleeing behavior or not.

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**Brain Imaging in Dissociative Amnesia**

The main goal of brain imaging in dissociative amnesia is to **identify potential novel biomarkers**, confirm the certainty of the diagnosis and provide objective measures for research purposes. Brain imaging in patients with dissociative amnesia does not impact the treatment plan.

**Positron emission tomography (PET)** with glucose show decreased cerebral glucose metabolism in the anterior **temporofrontal** regions in patients with dissociative amnesia. These brain regions are known to be related to autobiography memory recall.

Water-based PET scans are also used in patients with dissociative amnesia to study which brain regions are activated when previous life experiences are presented in healthy.

Healthy controls usually have right temporofrontal activation whereas patients with dissociative amnesia show left temporofrontal activation. This finding has been explained based on our current understanding of the lateralization of the human brain, i.e. the activation of the left hemispheric regions is suggestive of the neutral perception of the patient’s own experiences rather than perceiving them as his or her own memories.

The right inferior frontal regions and the right prefrontal cortex were also showing **hypometabolism on glucose PET** in patients with dissociative amnesia. Later, these same patients underwent magnetic resonance spectroscopy (MRS) brain imaging of the same regions and they were found to have an impairment in the GABA/Glutamate ratios in that same region.

This finding is very important for the treatment of dissociative amnesia and in helping these patients to recall the lost events, i.e. it seems that dissociative amnesia is eventually an inhibition/excitation imbalance disorder that is localized to certain cortical regions.

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**Treatment of Dissociative Amnesia**

Medical treatment of dissociative amnesia largely relies on the management of the associated depression with **antidepressants** and the performance of drug-assisted interviews. Drug-assisted interviews with **barbiturates or benzodiazepines** can help in the retrieval of certainly lost memories that can be the trigger of the amnesia.

When the patient recalls certain traumatic events or memories, it should be noted that
the risk of suicide is increased significantly.

Electroconvulsive therapy is either ineffective or harmful in dissociative amnesia. New approaches that are known to affect the inhibition/excitation balance in specific targeted brain regions such as transcranial direct current stimulation or transcranial magnetic stimulation are being tested as potential treatments for dissociative amnesia.

Hypnosis and hypnotherapy have shown some efficacy in helping the patients remember the traumatic events that led to this state.

**Psychotherapy** should first aim to the stabilization of the patient and the reduction of the symptoms. The next step should be the identification of the causes of the dissociation and understanding that dissociation usually happens due to certain wrong ideation or thinking mechanisms, i.e. a rape victim might blame herself. Addressing these issues especially in **group therapy** has been shown to be helpful.

References


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