IMPACT OF SEXUAL VIOLENCE ON VICTIMS' HEALTH: TRAUMATIC MEMORY AT WORK

Dr. Muriel Salmona, Psychiatrist, Psychotherapist, President of the Traumatic Memory and Victimology Association, author of: The Black Book of Sexual Violence, Dunod, 2013.

Abstract

Sexual violence is very traumatic, and has a serious long term impact on victims' health. However, the current protection and care for victims, especially for children, remains very inadequate and late. This happens because of the lack of knowledge and the misconceptions about the reality of this violence and its psychotraumatic consequences: traumatic memory and post-traumatic dissociation. Understanding their mechanisms is essential in order to identify and treat them better.

1. Sexual violence: what are the realities?

Sexual violence is common and spares no environment. Mainly committed by men (in 95% of cases) and by relatives and acquaintances (in 80% of cases concerning adults, and more than 90% of cases concerning children), it operates everywhere, but in more than half of cases, within the family and the couple. The more these "spaces" are supposed to be protective, the more frequent sexual violence is, and the more those supposed to be protected, such as children or people with disabilities, the more they are the victims of sexual violence.

If the numbers of adult cases are impressive:

One in five women and one in 14 men report having been sexually abused in their lifetime, and more than one in six women and one in 20 men being raped and attempted rape. Every year 102,000 adults between the ages of 18 and 75 - 86,000 women and 16,000 men - are victims of rape or attempted rape in metropolitan France (CVS, INSEE-ONDRP, 2013).

The numbers concerning children are even more impressive:

In the world, 120 million girls (one in ten) have been raped (UNICEF, 2014), and a recent report by the World Health Organization (WHO, 2014) notes that around **20% of women and 5 to 10% of men report having experienced sexual violence as children**.

Thanks to the 2008 CSF survey (Bajos & Bozon, 2008), we know that in France, the majority of rapes and attempted rapes occur before the age of 18: 59% for women and 67% for men. If we try to cross these data with those of the CVS survey, each year, **more than 120,000 girls and 30,000 boys under the age of 18 are victims of rape or attempted rape**.

According to the results of the Impact of sexual violence from childhood to adulthood (*Impact des violences sexuelles de l'enfance à l'âge adulte* (IVSEA) study conducted by the *Association Memoire Traumatique et Victimologie* with more than 1200 victims of sexual violence: 81% of victims of sexual violence suffered the first violence before the age of 18, 51% before the age of 11, and 23% before the age of 6.

The victims are abandoned:

While rapes and sexual assaults, recognized as crimes and offenses, are punishable by severe penalties, they are nevertheless the object of widespread denial, a law of silence and almost total impunity. Less than 10% of victims file a complaint and only 25% turn to health professionals or the social workers. The vast majority of victims, be they adults or children, are abandoned without protection, recognition, nor care. 83% of the victims who responded to our IVSEA survey report never having been protected, nor recognized.

In the absence of recognition and care due to the lack of training of professionals who, then, fail to detect violence, to search for and to diagnose the consequences of violence, these seriously traumatized victims develop strategies to survive violence and traumatic memory, strategies that are both extraordinary and disabling. In addition, they are at risk to being exposed to re-victimization (7 out of 10 victims have experienced repeated sexual violence, IVSEA, 2015).

2. Sexual violence: what are the psychotraumatic consequences?

Sexual violence has the sad privilege of being, with torture, the form of violence that has the most serious psychotraumatic consequences, with a risk of developing a state of chronic post-traumatic stress disorder associated with very high dissociative disorders in more than 80 % of rape victims, compared with only 24% for general trauma altogether (Breslau et al., 1991). This rate approaches 87% in cases of sexual violence that occurred in childhood (Rodriguez, et al. 1997). During rapes, the staging of murder, humiliation, the attack on dignity, generate in the victims a sense of psychic death, they perceive themselves as "dead-alive", reduced to objects, their life becomes a hell.

Psychotraumatic disorders are normal and universal consequences of violence, and can be explained by the development of neuro-biological and psychic survival mechanisms in response to extreme stress, mechanisms that are at the origin of traumatic memory (McFarlane, 2010). The specific damage, very well documented in the existing literature, are not only psychological, but also neurological with major dysfunctions of the emotional and memory circuits. They leave cerebral sequelae visible by MRI, a decrease in the activity and in the volume of specific structures (due to a reduction in the number of synapses), a hyperactivity in other structures, as well as a functional alteration in the circuits of memory and

the circuits of emotional responses (Shin et al., Rauch, et al., 2006; Nemerof, 2009).

Recently, epigenetic alterations have also been found in victims of sexual violence in childhood, showing a modification of a gene (NR3C1) involved in the control of responses to stress and the secretion of stress hormones (adrenaline, cortisol), alterations that can be transmitted to the next generation (Perroud, et al., 2011). Even more recently, a study published in 2013 in the American Journal of Psychiatry revealed anatomical changes visible by MRI of specific cortical areas in the brain of adult women who were sexually abused in their childhood. Remarkably, these cortical areas that have a significantly decreased thickness compared to those of women who have not suffered such violence, are those that correspond to the somatosensory areas of the body parts that were affected during the violence (genital, anal, mouth areas, etc.). The thickness of these cortical areas is all the more diminished as the violence has been more severe (Heim, 2013).

Without proper care, these psychotraumatic disorders can last for years, decades, or even a lifetime. They are not linked to the victim but to the gravity of the aggression and the destructive intentionality of the aggressor. In the traumatized victims, they cause a very great mental suffering, a loss of self-esteem, a considerable impact on their school, professional, social, emotional and sexual life, and on their health, with a risk of early death from accidents, illnesses and suicides (nearly 50% of victims have attempted suicide, IVSEA, 2015).

The impact is major on their health, as shown by international studies, in terms of both mental health for 95% of victims (IVSEA, 2015): anxiety disorders, depression, sleep disorders, cognitive disorders, eating disorders, addictions (for 50% of victims, etc.); and physical health for 70% of victims: disorders related to stress and survival strategies, cardiovascular and respiratory diseases, diabetes, obesity, epilepsy, immunity disorders, gynecological disorders, sexually transmitted infections, digestive disorders, fatigue and chronic pain, etc.

We also know that experiencing violence is one of the main determinants or even the main determinant (when violence occurred in childhood) of the victims' health even 50 years later, and may result in a loss of 20 years in life expectancy (Felitti, 2010, Brown, 2009).

The neurobiological mechanisms at the origin of psychotraumatisms

Violence has the effect ("*effet de sidération" "stupor effect"*) of stunning the psyche which paralyzes the victim, prevents her from responding appropriately, and prevents her cerebral cortex from controlling the intensity of the stress response and its production of adrenaline and cortisol. Extreme stress, then, invades her body as a real emotional storm, and - because it is a vital risk (for the heart and the brain by the excess of adrenaline and cortisol) (Yehuda, 2007) - triggers neurobiological safeguard mechanisms that cause the emotional circuit to trip ("*disjoncter*"), and to trigger emotional and physical anesthesia by producing morphine and ketamine-

like hard drugs (Lanius, 2010). Emotional anesthesia generates a dissociative state with a feeling of strangeness, disconnection and depersonalization, as if the victim became a spectator of the situation since she perceives it without emotion. But this disjunction isolates the structure responsible for the sensory and emotional responses (the amygdala) of the hippocampus (another brain structure, a kind of software that manages the memory and the temporal-spatial mapping, without which no memory can be memorized, neither remembered, nor temporalized). The hippocampus cannot anymore encode and store the sensory and emotional memory of violence, which then remains trapped in the amygdala without being processed, nor transformed into autobiographical memory. It will then remain out of time, unconscious, identical, likely to invade the field of consciousness and make the scene relive again as a hallucination, just like a time machine that goes back in time, with the same sensations, the same pain, the same sentences heard, the same smells, the same feelings of distress and terror (flashbacks, reminiscences, nightmares, panic attacks, etc.). This memory trapped in the amygdala, which has not become autobiographical, is called traumatic memory.

Dissociation and traumatic memory at work

As long as the victim is exposed to violence or the presence of the aggressor or his accomplices, she will be disconnected from her emotions, dissociated. Dissociation, a survival system in a very hostile environment, can then become permanent, giving the victim the impression of becoming an automaton, of being devitalized, confused, like a "living dead". This dissociation further isolates the victim, explains the psychological hold phenomena ("*emprise*") to which she is subject, and disorients everyone who comes in contact with her (Salmona & Salmona, 2015). The absence of apparent emotion in a dissociated victim disables de activation of mirror neurons in her interlocutors, by thus disabling their automatic empathy towads her, which makes them all the more rare to mobilize for her and to protect her while she is severely traumatized and in danger. These traumatic dissociative disorders often provoke indifference, negative judgments, even rejection and maltreatment in the victim's entourage and in the professionals with whom she comes in contact.

During dissociation, because the amygdala and the traumatic memory it contains are disconnected, the victim will not have an emotional and sensory access to traumatic events. Depending on the intensity of the dissociation, she may even be amnesic of all or part of the traumatic events, with only some very fragmented images, fragments of invading emotions or some isolated details remaining. This traumatic amnesia is common among victims of sexual violence in childhood (nearly 60% of child victims have partial amnesia of the facts, and 40% total amnesia (Brière, 1993, Williams, 1995, Widom, 1996, IVSEA, 2015). This phenomenon can last for many years, even decades

When victims exit their dissociated state, the traumatic memory takes over

But, if the dissociation disappears, which can happen when the victim is finally secure and is no longer permanently confronted with violence or her aggressor, or during the umpteenth violence that, because it is even more extreme, overflows the backup system, then traumatic memory can reconnect. The victim may suddenly be confronted with a veritable tsunami of terrifying emotions and images that will sweep her through, accompanied by great suffering and distress. This can lead to panic fear, agitation, intolerable anxiety and confusion such that the victim may find herself hospitalized in emergency psychiatry (often with a diagnosis of a delusional disorder, "*bouffée délirante*"), and these are often accompanied by a very serious suicidal risk. Especially if the victim was confronted with a murderous intentionality, she relives this intentionality as if it emanated from her, in a compulsion to kill herself.

Traumatic memory is at the heart of all psychotraumatic disorders. As soon as a link, a situation, an affect or a sensation recalls the violence or makes the victim fear that it will happen again, the traumatic memory then invades the victim's psychic space in an uncontrollable way. Like a "time bomb" likely to explode, often months or even years after the violence, the traumatic memory turns the victim's psychic life into a minefield. Like a "black box", the traumatic memory contains not only the victim's emotional, sensory and painful experience, but also everything related to the facts of violence, their context, and the aggressor (his mimicry, his staging of the violence scene, his hatred, his excitement, his cries, his words, his smell, etc.). This traumatic memory of both the violent acts and the aggressor colonizes the victim, and makes her confuse confuse what comes from her with what comes from the violence and the aggressor. The traumatic memory of the words and of the staging by the aggressor ["*You are worthless, it's all your fault, you deserved it, you like it*", etc.] feeds her with feelings of shame, guilt, a catastrophic self-esteem, and the abuser's hatred and perverse excitement may falsely lead her to believe that *she* is the one who feels them, which will constitute an additional torture, so she will end up with only contempt and hatred for herself. And the more the violence occurred early in the life of the victims, the more the victims are forced to build themselves with these emotions, sensations of terror, acts and perverse remarks, forced to fight against them without understanding them, and without knowing where is the line of demarcation between their true personality and their true sexuality, on the one hand, and what is due to their traumatic memory, on the other hand (Van der Hart, 2010, Salmona, 2013).

Because of the traumatic memory, the victims find themselves constantly reliving against their will the worst moments of terror, of pain, of despair, like an endless torture, along with sudden sensations of being in great danger, total panic, imminent death, fear to be thrown to the ground, beaten violently, fear of fainting. They are afraid that they became crazy, and feel alien to others and to themselves. With these sensations, the perpetrators remain eternally present, imposing on the victims the same atrocious acts, the same murderous sentences, the same deliberate

intention to induce suffering, the same perverse pleasure in destroying her and in imposing their mystifying and degrading stagings, with a hate, contempt, insults and words that do not concern the aggressors anymore (Salmona, 2013).

Survival strategies: avoidance behaviors and dissociative behaviors

Life becomes a hell for the victims, with a feeling of insecurity, fear and permanent war. They need vigilance at every moment to avoid situations that may make the traumatic memory explode. Avoidance behaviors, environmental control behaviors (phobias, OCD) and hypervigilance behaviors (with a feeling of permanent danger, a state of alert, hyperactivity, irritability and attention disorders). Victims, especially when they are children, try to create a parallel secure world where they feel safe, which can be a physical world (like their room, surrounded by objects, stuffed animals or animals that reassure them) or a mental world (a parallel world where they continuously take refuge). Any stress situation is to be avoided, it is impossible for the victim to relax her vigilance, sleep becomes extremely difficult. Any change will be perceived as threatening because it is perceived as putting at risk the marks that the victim put in place. These avoidance and control behaviors are exhausting and invasive, they lead to cognitive disorders (attention, concentration and memory disorders) that often have a negative impact at school and on the victim's learning processes.

But, these behaviors are rarely perceived as being sufficiently protective, and in order to switch off the traumatic memory at any cost or to prevent its ignition, the victims discover very early the possibility of anesthetizing themselves emotionally through dissociative behaviors (Salmona, 2012). These conducts are used to provoke "at any price" a trip (*disjonction*), in order to switch off by force the emotional response by anesthetizing it, and so to calm a state of intolerable tension, or to prevent its occurrence. This induced trip can be done in two ways, either by provoking a very high stress that will increase the amount of dissociative drugs secreted by the body, either by using dissociative drugs (alcohol, narcotics).

These dissociative behaviors are risk-taking behaviors: self-aggressive behaviors (hitting, biting, burning, scarifying, trying to commit suicide), putting herself in danger (dangerous driving, dangerous games, extreme sports, risky sexual behavior, prostitutional situations, running away, dangerous encounters), addictive behaviors (consumption of alcohol, drugs, eating disorders, addictive games), delinquent and violent behavior against others (the "other" then serving as a fuse because of a balance of power imposed on them in order for the victim to trip out and anesthetize).

Risky behaviors are therefore a deliberate endangerment sought for their dissociative power. They consist of an active or even compulsive search for situations, behaviors or uses of products known to be dangerous in the short or medium term. But they also reload the traumatic memory, making it ever more explosive, and making dissociative conduct ever more necessary, creating a real addiction to endangerment and / or violence. These dissociative behaviors are incomprehensible to everyone and seem paradoxical. For the victims, they cause

feelings of guilt and great loneliness, which makes them even more vulnerable. They can lead to a permanent dissociative state such as during the violence where the victims' detachment and apparent indifference put them in danger to be even less rescued, and even more ignored and abused.

Because of these survival strategies, a victim of sexual violence in childhood can, in her adolescence and adulthood, oscillate between:

• an impossibility or a very great difficulty to have a sexual life with a person she loves, because most of the gestures of a sexual act trigger traumatic reminiscences that make them unbearable or very distressing, so much so that sexual intercourse is only possible when the victim is dissociated (drugged, alcoholic or after being stressed by violent mental images);

• in situations of great malaise, risky sexual behaviors, encounters with unprotected strangers, violent sexual acts (self-aggressive or in the context of "sadomasochistic" practices), endangerment on the internet or with people who are obviously perverse, or even prostitution practices, in order for the victims to dissociate themselves.

Moreover, the quasi-permanent dissociative state in which the victims live gives them the painful impression of not being themselves, of living "as if", as if they were permanently staged. Emotional anesthesia forces them to "play" emotions in their relationships with others, with the risk of over- or under-playing, and not being fully in phase with them.

Risks of self-harm, suicide, being re-abused or to reproduce violence.

Leaving the victims of violence traumatized without care is a risk factor in the reproduction of violence, both between individuals close to each other and from generation to generation, with victims being at high risk to be abused again, and also to commit self-harm, and for a small number of them to harm others, which is enough to feed endlessly a cycle of violence. The WHO recognized in 2010 that the main factor to suffer or commit violence is to have already suffered violence.

Reproducing the violence that we have suffered is terribly effective to anesthetize emotionally and crush the victim that we have been and that we despise, we then switch to gaining a full power that allows to escape our traumatic memory and escape from states of terror or permanent fear. This is a dissociative strategy. But while, when one is traumatized and left abandoned without care nor protection, one can not be held responsible for being invaded by a traumatic memory that revives violence and for putting in place survival strategies such as avoidance, control and / or dissociative behaviours, on the other hand one *is* responsible if one choses to use such behaviours against others by instrumentalising the "other" as a fuse to trip.

The misunderstanding of psychotraumatic disorders and of their mechanisms is highly detrimental to the victims because it allows misrecognizing the victims true suffering, symptoms and handicaps, and the latter's misconnection to their true

cause: the violence. Such misunderstanding, misrecognition, and misconnection allows to continue to blame the victims, who then appear as the wizards of their own misfortune by being unable to get better, to get up, to turn the page, to stop victimizing themselves, to come out of a so-called fascination for the trauma.

3. Sexual violence: how do we care for the victims?

Specific care by trained caregivers, focused on violence and traumatic memory is essential. Such care unfortunately most often lacks, and health centers where it may be provided are still very rare in France. Care professionals are poorly trained in psychotraumatology, most do not systematically question their patients about the violence they may have suffered, rarely identify symptoms as traumatic, and do not offer specific treatment.

Psychotraumatic symptoms are often incorrectly labeled as neurotic or depressive neurotic disorders, personality disorders (borderline, sensitive, asocial), elderly dementia, and sometimes as psychotic disorders (manic-depressive psychosis, schizophrenia, paranoia, etc.), which are abusively treated as such and not as traumatic consequences. Similarly, thought-avoidance and control-related behaviors associated with dissociative disorders in children and adolescents may be so invasive, and result in such inhibition of contact and of speech, that they may be mistaken for intellectual deficits or autistic-looking disorders, which they are not of course. All these disorders are regressive as soon as adequate quality care makes it possible to treat traumatic memory. Instead, symptomatic and dissociative treatments are most often used, and these treatments are indeed "effective" to remove the most troublesome symptoms and to anesthetize the most severe pain and distress, however, they do not treat the patients' traumatic memory and sometimes they even aggravate it.

However, psychotraumatic disorders can be treated with psychotherapeutic techniques that allow an integration of the traumatic memory into the autobiographical memory and a recovery of the neurological damage thanks to the neuroplasticity of the brain. This advanced analysis allows the associative brain and the hippocampus to function again, to regain control of the amygdala's reactions, to encode the emotional traumatic memory and turn it into a conscious, controllable autobiographical memory. In addition, it has been shown that specialized care made it possible to recover neuronal damage due to extreme stress during trauma, through neurogenesis and the improvement of visible dendritic links on MRI (Ehling, 2003).

To do this, we must take the victim out of her initial stunned state and her subsequent traumatic dissociation (by revisiting the violence armed with all the necessary tools to analyse and understand, by dismantling the aggressor's system and lies, and by reintroducing meaning and coherence), and we must clear her traumatic memory by making links between each symptom and the violence that she suffered, so that her experience can gradually become integrable, because better representable, better understood, by putting words on each situation, on each behavior, on each emotion, by accurately analyzing the violence context, the

victim's reactions, the aggressor's behavior. It is about putting the world back in its place. We must reconstitute with the victim her history by restoring her personality and her dignity, by freeing her of everything that had colonized and alienated her (stagings, guilt, lies, denial, traumatic memory).

The goal of psychotherapeutic care is to never give up understanding everything, never give up giving meaning. Any symptom, any nightmare, any behavior that is not recognized as consistent with what we are basically, any thought, reaction, incongruous sensation must be dissected to connect it to its origin, to highlight it with links that allow to put it in perspective with the violence suffered. For example, an odor that gives a victim discomfort and a desire to vomit relates to an odor of the aggressor, a pain that makes her panic relates to a pain felt during the aggression, a noise that seems intolerable and distressing is a noise heard during the violence (such as the sound of rain if it rained during violence), an hour of the day can be systematically distressing or can lead to alcohol intake, bulimic behavior, suicidal rape, self-harm around the time of the aggression, a feeling of irritation, tickling or heating in the genitals occurring in a totally inappropriate way in certain situations can be related to touching suffered, violent "sexual fantasies" that are unwanted and very disturbing, but that impose themselves, are only traumatic reminiscences of the suffered rapes or the sexual assaults...

Rapidly, this work is done almost automatically and makes it possible to secure the psychic ground, because during the ignition of the traumatic memory the cortex will be able to control the emotional response and to calm the distress, without having recourse to a trip ("*disjonction*"), be it spontaneous or provoked by risky dissociative conduct behaviors. It is about the patient becoming a "demining" expert and continuing the work by herself, with dissociative behaviors no longer necessary, the traumatic memory more and more discharged, the feeling of permanent danger calmed little by little, so it becomes possible for her to regain her coherence and her freedom, to stop surviving to finally live.

4. Conclusion

It is therefore essential for the victims of sexual violence to be recognized, protected, informed, comforted, and to receive specific care as soon as possible, to avoid severe and chronic psychotraumatic disorders that will have serious consequences for their future lives and their health, and bear the risk of perpetuation of violence. Violence prevention is first and foremost about the protection and care for the victims. Because they will no longer be condemned to silence, or abandoned without protection and without care, these victims will be able to come out of the hell to which their traumatic memory condemns them.

http://stopaudeni.com/

Recent surveys on victims in the general population, and on the victims of sexual violence in France and in the world:

To find out more, the sites of the *Association Mémoire Traumatique et Victimologie*, with many articles, documents, resources, report (IVSEA) and training videos to view and download: http://www.memoiretraumatique.org

Quoted references

Breslau N, Davis GC, Andreski P, Peterson EL. Traumatic events and posttraumatic stress disorder in an urban population of young adults. *Arch. Gen. Psychiatry*. 1991;48:216-222.

Briere, J., Conte, J., « Self-reported amnesia for abuse in adults molested as children » in *Journal of traumatic stress*, Janvier 1993, Vol. 6, Issue 1, p. 21-31.

Brown D. W., Anda R. F., et al., « Adverse Childhood Experiences and the Risk of Premature Mortality » in *American Journal of Preventive Medicine*, Novembre 2009, Vol. 37, Issue 5, p. 389-396.

Ehling, T., & Nijenhuis, E.R.S., Krikke, A. (2003). Volume of discrete brain structures inflorid and recovorid DID, DESNOS, and healthy controls. *Proceedings of 20th International Society for the study of dissociation*. Chicago, 2003, november 2-4.

Felitti VJ, Anda RF. The Relationship of Adverse Childhood Experiences to Adult Health, Well-being, Social Function, and Health Care. In Lanius R, Vermetten E, Pain C (eds.). *The Effects of Early Life Trauma on Health and Disease: the Hidden Epidemic*. Cambridge: Cambridge University Press, 2010.

Heim CM, Decreased Cortical Representation of Genital Somatosensory Field After, *Am J Psychiatry*. 2013 Jun;170(6):616-23

Louville P., Salmona M. Muriel, « Clinique du psychotraumatisme » in *Santé Mentale*, Mars 2013, n° 176, p. 30-33. téléchargeable sur le site memoiretraumatique.org

McFarlane AC. The long-term costs of traumatic stress : intertwined physical and psychological consequences. *World Psychiatry*. 2010 Feb;9(1):3-10.

Perroud N. Increased methylation of glucocorticoid receptor gene (NR3C1) in adults with a history of childhood maltreatment: a link with the severity and type of trauma, *Translational Psychiatry* (2011) 1, e59;

Rodriguez, N., Ryan, S. W., « Posttraumatic stress disorder in adult female survivors of child sexual abuse: A comparison study » in *Journal of Consulting and Clinical Psychology*, Février 1997, Vol. 65, Issue 1, p. 53-59.

Salmona M. La mémoire traumatique. In Kédia M, Sabouraud-Seguin A (eds.). *L'aide-mémoire en psychotraumatologie*. Paris : Dunod, 2008.

Salmona M. Mémoire traumatique et conduites dissociantes. In Coutanceau R, Smith J (eds.). *Traumas et résilience*. Paris : Dunod, 2012, téléchargeable sur le site memoiretraumatique.org

Salmona M. Dissociation traumatique et troubles de la personnalité post-traumatiques. In Coutanceau R, Smith J (eds.). *Les troubles de la personnalité en criminologie et en victimologie*. Paris : Dunod, 2013, téléchargeable sur le site memoiretraumatique.org

Salmona M. « Le viol, crime absolu » in doss. « Le traumatisme du viol », *Santé Mentale*, Mars 2013, n°176. téléchargeable sur le site memoiretraumatique.org

Salmona M. *Le livre noir des violences sexuelles*, Paris, Dunod, 2013

Salmona M. Le changement dans les psychothérapies de femmes victimes de violences conjugales In Coutanceau R. et Joanna Smith (eds) in *Psychothérapie et éducation : la question du changement*, Paris, Dunod, 2015 téléchargeable sur le site memoiretraumatique.org

Shin LM, Scott L, Rauch SL, Roger K, Pitman RK. Amygdala, Medial Prefrontal Cortex, and Hippocampal Function in PTSD. *Ann NY Acad Sci.* 2006;1071:67-79.

Van der Hart O. and co. *Le soi hanté*, Paris, De Boeck, 2010

Williams, L. M., « Recall of childhood trauma : a prospective study of women's memory of child sexual abuse » in *Journal of consulting and clinical psycholo*gy, 1994, Vol. 62, n°6, p. 1167-1176.

Widom C. S., Accuracy of Adult Recollections of Childhood Victimization : Part 1 ; *Childhood Abuse*, NCJRS Psychological Assessment Volume:8 Issue:4 Dated: (1996) Pages:412-421

World Health Organization and London School of Hygiene and Tropical Medecine. Preventing intimate partner and sexual violence against women: Taking action and generating evidence Geneva: World Health Organization, 2010.

Yehuda R, Ledoux J. Response Variation following Trauma: A Translational Neuroscience Approach to Understanding PTSD. *Neuron* 56. 2007, Oct 4;19-32

Translated from French :

Salmona, M. (2017). Impact des violences sexuelles sur la santé des victimes: la mémoire traumatique à l'oeuvre. In C. Tarquinio et al. (Eds.). pp 207-218, Paris: Dunod, available at: https://www.memoiretraumatique.org/assets/files/v1/Articles-Dr-MSalmona/2017-Aide-memoire-Dunod-Impact-des-violences-sexuelles-la-memoire-traumatique-a-l-œuvre.pdf