

process, in that we are aware of it. The experience we remember is either salient or we decide to make it so. Explicit memory is available to us. We usually have the ability to recall this information and take advantage of it in a conscious way. The night before the big exam, we are mostly concerned with explicit memory.

Explicit memory develops with experience and history; therefore it develops well after implicit memory. Conscious processing of experience requires developing cortical regions of the brain. This process happens in the early childhood years and continues throughout life unless arrested in development. It would make little sense to expect the twelve-month-old to learn facts, but the three-year-old is more than ready to move into this area. As the experience of the child grows, one neural firing after another, the higher regions of the brain develop, and explicit memory becomes more readily available for use by the child.

Memory assists in adaptation but can also be a hindrance. Being able to make adjustments in the future based on past experience improves the likelihood of a successful outcome and can be of great assistance. Traumatic memories are intended to promote survival by avoidance of associations with trauma. However, if there is no real threat, this avoidance becomes a clinical symptom of posttraumatic stress disorder and hinders the person's functioning. Working with traumatic memory is another key aspect of trauma therapy.

The brain is prepared to develop from lower regions and more primitive functions to higher, more complex regions and functions. Memory is a critical component of brain functioning. However, memory can either be a fundamental component of successful functioning for the child or a serious impediment.

Memory becomes a problem when experiences overwhelm the capacity of the brain to take in and process the situation. For example, when a child is struck at home when an abusive parent is disappointed, the child may be overwhelmed in school when the teacher expresses disappointment. At its core,

trauma sensitizes the child's system to the "prime directive" of the brain--which is survival. When survival is perceived to be in question, all bets are off when it comes to responding, coding, or storage of information. The brain and the body are designed to respond to insure survival; only those aspects of the situation that can help improve survival are immediately important to the child.

Some of the most profound trauma for a child happens in very early stages of life and brain development. At this point physical responses to avoid danger are extremely limited. Faced with very limited options, the brain provides internal means of escape. For children traumatized very early in life, the storage of trauma in the limbic system remains very strong and is unavailable for normal cognitive recall or processing. In other words, the individual is not able to recall why he feels or acts as he does, he simply switches to autopilot.

Treatment Implications

- ✓ Consider all problematic behavior within the context of survival to better understand it. This may help you answer the question, "Why does he keep doing that?"
- ✓ For traumatized children, adaptations of perceptions, emotions, and behavior were initially helpful for self protection, but when safe, the child does not immediately adjust. Just because the child's responses do not make sense to you does not mean they do not make sense to the child.
- ✓ Use-dependent neurodevelopment means there is hope for healing from a traumatic past, but there must be constant hard work and repetition. The brain is never finished developing during life. The

good news is that new perceptions/feelings/ behaviors can be developed. The bad news is that there is no quick solution. Trauma acts quickly on the brain; positive experiences act slowly.

✓ The more the child experiences positive support, the better this experience is processed by the brain. The pace may be slower than you notice, but the brain processes positive experience better with each repetition.

✓ Deprivation from neglect means the child will undoubtedly have developmental holes in areas such as language skills, socialization, daily living skills and executive functioning. Part of the trauma therapy process is to identify what the child missed while she was preoccupied with concerns of survival.

✓ It is important to understand negative emotional and behavioral default modes. Traumatized children often revert to the most negative context of any situation. Expect this and you will be better prepared to handle the situation.

✓ Brain research confirms that therapy when children are young makes good sense for several reasons. Helping the child experience safety is critical to eliminating the experience of trauma. Identified development deficits can be addressed early on. Traumatic memories can be clarified and their interference reduced. The younger the child is, the better the prognosis for trauma therapy.

✓ Memory can and must be modified in treatment. The goal is not to give the child "false" memories,

but to give the child more complete memories--including the larger picture of the experience.

✓ Do not confuse implicit and explicit memory. Much of what the child "remembers" about the trauma is not about facts. Do not expect the child's inner experience or memory to make good sense since it is internal, personal and not logical. Facts are important in legal matters, but internal experience or implicit memories may be more important in psychological matters.

The central nervous system responds to stress by developing hyper-vigilance, which is in response to the brain's sensitization over stressful stimuli. The central nervous system adapts to stress by tuning out non-stressful events, and eventually the body activates only around critical stimuli and underresponds to non-critical stimuli. When this pattern is seen with traumatized children in school, it can be difficult for teachers. A traumatized child will often ignore the teacher's attempts to assign reading or science because this information has no immediate relevance for survival and will be ignored.

The effects of trauma on the body most often are seen in emotions and behaviors such as frequent arousal to minor issues, hypervigilance, mood swings, attention problems, and sleep disturbance. These mood and sleep disturbances initiate a negative cycle of putting stress on the body's "batteries" without the ability to recharge them.

Lansky (1995) provides an excellent overall assessment of the effects of trauma on the individual in this statement: "The ultimate endpoint of chronically experiencing catastrophic states of relational-induced trauma in early life is a progressive impairment of the ability to adjust, take defensive action, or act on one's own behalf, and a blocking of the capacity to register affect and pain, all critical to survival. Ultimately these individuals perceive themselves as different from other people and outside of, as well as unworthy of, meaningful attachments.

There are many more effects of trauma on the body which will be covered as we move our focus more toward children and how they are affected by trauma.

Treatment Implications

- ✓ Childhood neglect has special treatment significance. Because of the pervasive impact of neglect, it should

get special attention and consideration in the treatment process.

- ✓ Avoid indiscriminate arousal of the fight or flight response. It is very important not to unintentionally stimulate arousal of this survival response. When this happens, maladaptation is reinforced.

- ✓ Most negative behaviors were useful adaptations at some point. It is often helpful to look for the ways problematic behaviors played a functional role in the past.

- ✓ Nonverbal therapy methods will be needed to get to the best understanding of trauma memories. Use art, play, movement, and expression of all kinds to get information. Words will be distracting and often useless.

- ✓ When assessing the trauma, look closely at symptomatic behaviors, themes, and patterns of responses. What is the child telling you about his or her past through these methods?

- ✓ The significance of the trauma is based on how strong, how long, how many dimensions, and how overwhelming. The degree to which an experience is overwhelming is linked to the child's support system at the time.

- ✓ As a part of trauma assessment, observe particularly sensitive areas and issues for the child. These are more ways to gain information concerning internal experience.

- ✓ When there is information on when trauma occurred, consider what the child missed developmentally at that time. Part of the treatment will need to address what the child missed along the way.
- ✓ When trauma is present, testing can underestimate cognitive potential. In my experience, effective trauma therapy can add significantly to IQ scores.
- ✓ Train the child in healthy allostatic responses. One of the most important repetitive steps in deconditioning the impact of trauma is to teach the child how to become stressed and then how to become relaxed.

Chapter

4

The Effects of Trauma on Perception and Internal Experience

The long-term effects of childhood trauma are often worse than the trauma itself. Being sexually touched, punched, burned, or neglected are all terrible experiences for a child to endure, but the experience itself comes to an end at some point. However, the internal effects of trauma often do not come to an end. The child ends up caught in a nightmare where the trauma is either currently going on or is about to start all over again at any time. This would be analogous to the Hollywood movie *Groundhog Day* made into a horror film, repeating the same terrible experience. There are many reasons why the internal experience of trauma continues long after the external experience is over, which will be the focus of this chapter.

Biological States Produced by Trauma

One of the primary ways the child continues to experience trauma long after the offender is gone or the incident has ended is the continuing stress response within the child's body. In the last chapter the effects of trauma on the brain and the body were covered. Memory of trauma was also shown to be stored in multiple ways and in multiple places within the brain. The body actually remembers experiences very well. What the