

## All child abuse causes brain damage

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Dear Alice!

I have some comments on the recent reader's mail issue, lesions in the brain caused by child abuse (sorry about my poor English).

The dualistic approach for healing has been shown to be harmful: Psychiatry trying to heal the psyche and the somatic medicine is trying to heal the body – isolated - leads to to misunderstanding of what it IS to be a human being. The incorrect treatment that follows leads to re-victimization as shown by the research of the the Norwegian professor of medicine Anna Luise Kirkengen (even though the doctors often evaluate their therapy to be a success!).

As numerous studies show, we are all very much programmed by the early care we receive and we even sometimes repeat it in a photographic manner even if we do not have any recollection of it. A study found that abused children that did not have the recollection of abuse replicated scenes from when they where abused through their play. The scenes matched exactly the video material recorded by the abusing babysitter (ref.: J. Herman 1992). And a compelling cross-fostering study from our cousin the rhesus monkey shows that while 60% of very early abused monkey babies abuse their own children when they grow up, non - 0%! - of the non abused monkey babies abuse their offspring as adults (Maestriperi 2005). Even if we have no recollection of abuse or the opposite - empathic treatment - it will come out one way or the other, most often the same way as received. It is stored in our bodies, and our brains are part of our bodies (at least last time I checked).

Knowledge about connections are essential even if we don't see the value of it right away, but of course lot of therapists follows a recipe so that they will have to block out disturbing new evidence. And a very important point is honesty to the patients. A patient has the right to know about himself, and to decide for himself what to do about the information (The brother of a former girlfriend of mine died of blood cancer, but did not know what was wrong with him until his last weeks. The doctors just didn't think that the information would do him any good (sic!!!)). The main answer to WHY we must include lesions in the brain in the picture of child abuse is however: nothing is "just psychological".

Since Douglas Bremner in 1995 scanned the brains people with PTSD, the evidence for lesions in the brain caused by child abuse and neglect has piled up (Bremner is one of reasons that traumatized people is taken more serious today than 20 years ago, and is currently working for the ACE study, as far as I know). A lot of areas in the brain seem to be affected, among them the area called hippocampus (where the hippos live in the summer?) and amygdala (a princess from a sci-fi film?).

Studies by Bremner, Vermetten and colleagues has shown lesions in the brains of people with PTSD due to child abuse shows a reduction in hippocampal size in the range of about 12% to 19% (Bremner et al. 1997 & 2003) We find the same in people with so called borderline personality disorder (which is just an insulting name for people traumatized as children). Driessen et al. 2000 finds that the patients with BPD had nearly 16% smaller volumes of the hippocampus and 8% smaller volumes of the amygdala than the controls. If we look at the brains of people with DID (dissociative identity disorder), we find even greater lesions. Vermetten and colleges' recent findings (2006) shows hippocampal volume to be 19.2% smaller and amygdalar volume 31.6% smaller in the patients with DID, compared to the "healthy subjects" (they were probably not "healthy" since most people have endured some form of "subtle" abuse (see below) indicating even worse lesions in the brains of the people with PTSD, "BPD" and DID). And as the people with PTSD and "BPD" have been severely abused, the people with DID have endured even worse abuse (Lewis et al.1997). We seem to have a dose response connection (the more, the worse) between the degree of abuse and the degree of damage to the brain; strong evidence of causality.

A dose response relationship between abuse and psychological damage is even better established, but a lot of researchers and people in general argue for a threshold model. They hope and pray that if only the abuse is not so severe or not so regular, the child will be undamaged. However, studies that are designed to control for this finds support for a linear, but not a threshold model: all abuse have an impact!

The CIC study (Children in the Community) from New York is very interesting. This is a prospective longitudinal study that have followed children and their families for over 30 years. In some of the about 150 papers produced by this project, the researchers look for more subtle forms of maltreatment, and a linear dose respons pattern is strongly supported over the 23 parameters of "maladaptive parental behavior" (Johnson et al.2001).

It could also be worth mentioning that studies on animals have found that early adversities, for instance repeated maternal separation, have a lasting damaging impact on hippocampus through increased production of cortisol or increased sensibility to cortisol (Anderson & Teicher 2004, Mirescu et al.2004).

Alarming raises in cortisol has also been found in 15 month young children (Ahnert et al. 2004), regularly separated by being sent to kindergarten (a very common form of child abuse in Scandinavia). And a study of Daphne Bugental with colleges from 2003, found maternal emotional withdrawal (as a control tactic) and emotional unavailability (due to depression) to produce similar high levels of cortisol in infants below 1 year known to produce lesions in the hippocampus (hippo campus is not a jolly place for all!).

Summary: Abuse/neglect causes lesions in the brain. As the abuse/neglect get worse the emotional impact get worse. There is no threshold for emotional impact, and since all emotions have physical correlations a threshold for physical damage is unlikely to exist. It has been shown that a result of both severe and "subtle" abuse is increased levels of cortisol. Prolonged increased levels of cortisol has demonstrated to produce lesions in

the brain.

Conclusion: There is little doubt that all unemphatic treatment of children have both immediate and lasting impacts. Abuse does just not go away. It causes lasting damage to the brain. Blocking out this information is totally irrational but understandable out of being av victim of child abuse ourselves.

Warmly, V. J., Norway

**AM: Thank you very much for your clear letter and the important information it contains. Probably it was your courage to see your own parents that gave you the capacity to understand more than some scientists can who never came in touch with their feelings. They can write about irreversible damages in brain without having the knowledge of successful therapies. In fact, the big majority of the world population absolutely confirms their beliefs that the damage caused by child abuse can't be cured - if they refuse to work on it in therapy. On the other hand, we can see in this mailbox that there are people who could overcome their fear and got rid of their symptoms by daring to see what their parents had done to them and to rebel against cruelty and injustices endured in their childhood.**