THE MASTER Series

The Master Series: Trauma Edition – Dr. Bessel van der Kolk

When you see this photo of a baby, feel how your face may light up. Why is that? Because you recognize something that's essentially human. This is who we are. Our basic nature as human beings is to connect, to be in sync with each other. This has very little to do with words. It has to do with rhythms and synchrony. As time passes the more I see trauma as a disorder of synchrony, of not being in tune, of not being in touch and in harmony with the people around us.

We get stuck, we get frozen, we get scared and that easy flow between us and our fellow human beings, which is our primate nature, gets disrupted. The big question then becomes, if trauma causes people to be frozen and to stop being able to have these easy interactions, how do we open it up again?

Here's an example. This is Andy Meltzoff at University of Washington. Many years ago, he goes to a newborn nursery and he is amazed by a five hour old baby. The baby was just born just five hours ago, he has no brain yet, has no experience. Andy sticks out his tongue and the baby sticks out his tongue. He opens his mouth, the baby opens his mouth. He frowns, the baby frowns. I myself have had the opportunity to do this many times in the past few years. From the moment we are born we are imitating creatures. We're geared to imitate each other and supposed we are supposed to do that. We learn by being in tune with each other.

That's what we do with the kids when we work with early attachment trauma, because it's those things – ***the doing, the fun,*** that get disturbed. It's something learned early on from actions of others, that set our minds and brain in gear of how and what to expect from people.

As many of you know, Bessel is one of the leading researchers in the field of trauma and PTSD, bringing more knowledge of the science and neuroscience of trauma into the world. His book, The Body Keeps the Score has been on bestseller lists for many weeks and is one of the most important books on the topic. One of the great things about his book is not only is it a relevant for clinicians, but he did an amazing job in translating the research and information about trauma to the lay person.

ATTACHMENT AND TRAUMA

To begin with we are going to talk about attachment and trauma. They're somewhat different dimensions which I'm going to highlight. I've carried out a number of workshops where I ask people; 'if you were dating and looking to meet your soulmate, what would you say about yourself to those potential partners?' What astounded me is how many people said 'I'm an incest victim' or 'I'm a veteran', and it was astounding how many people defined themselves by their trauma. Although trauma is part of us, it is not supposed to define us.

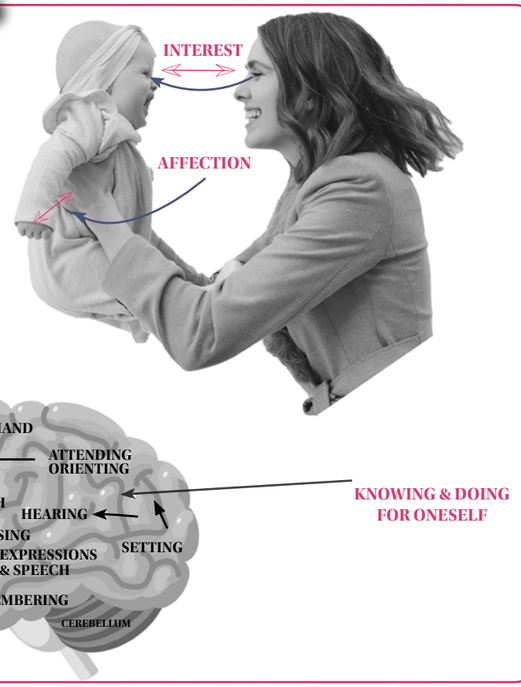
I'm intrigued with how people's identity becomes a traumatic identity. I started to think about how we can help people to create a new identity. I became very interested in theater and dedicated the final chapter in my book to the subject of theater. Acting is a powerful way of incorporating the feeling of being somebody other than the people we believe we are. I took an advanced Shakespearean acting course. In part, in order to become a famous Hollywood actor, but that never happened! I did however, learn a lot from the experience.

Here is another example. We are interactive creatures who cannot exist without the each other. We cannot exist without a community, without the people who resonate with us. I have spent some years in psychoanalysis. What is more unnatural than to lie on a couch staring at the ceiling without seeing the face of the person you're talking to? We need to interactions with each other, to play together. What we know today is that our brain is formed based of these early interactions. This is a slide from Coleman Traverson, an Attachment Researcher at the University of Anna Brough, who studies the musicality of parent to child interactions. What Coleman has shown over the years is that the experiences we have early on life, create the framework and maps in our brains, in our psyche of who we are and what the world is like.

FIGURE 1. Brain-brain interactions during face-to-face communications of proto-conversation. mediated by eye-to-eye orientations, vocalizations, hand gestures, and movements of the arms and head, all acting in coordination to express interpersonal awareness and emotions. Adapted from Aitken & Trevarthen (1993) and used with permission of Cambridge University Press.

HOW BRAINS EXPRESS INTEREST WITH AFFECTION

Telling & acting out stories with emotion, listening to thoughts and imitating actions is how humans learn- in shared vitally & awareness.



These learning experiences shape who we are. Shape how we see and know ourselves. Let's imagine I spend the summer with my grandchildren and it's a marvelous experience. We adore our grandchildren. The moment our grandchildren come into the room, our face lights up, we smile, we are happy to see them. Hopefully, the world our grandchildren see when they enter a room, is one of smiling people, who are happy to see them. In contrast, when an abused or neglected child sees people frowning and unhappy to see them, they develop a hardwiring in the brain that they bother people, they are a pain, they are unnecessary. That hardwiring makes them believe that's who they are, how they see themselves, how they see other people.

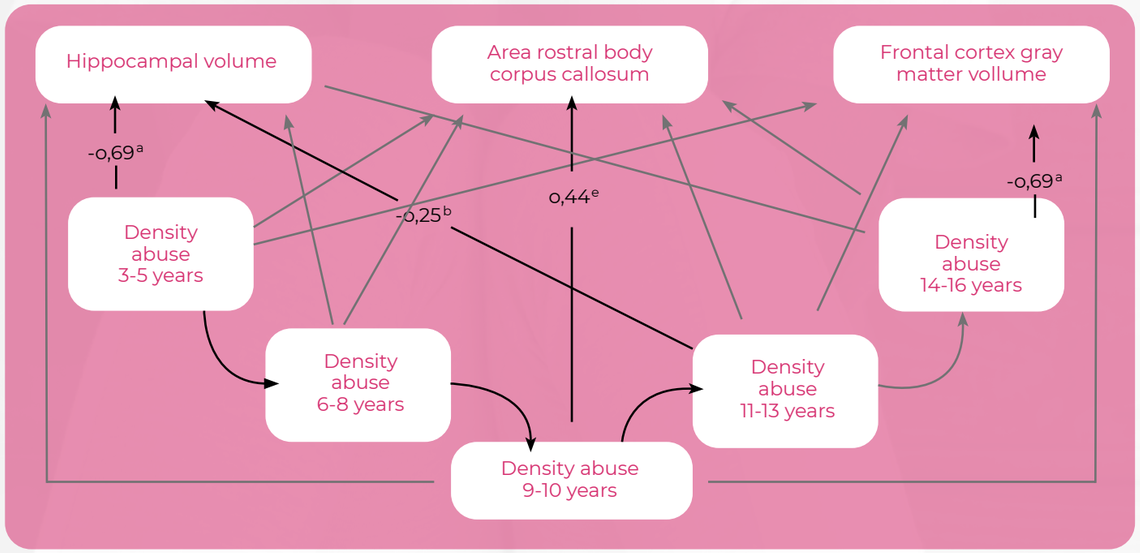
Over the past 20 years or so, we have learned a lot from neuroscience. A few years ago, my friend Marty Teicher, did a meta-analysis of all the brain studies that have been carried out for psychiatric disorders. In his study, he controlled for abuse and neglect. What he discovered is that abuse and neglect are the only relevant factors that we know about of how the brain gets shaped by experience. All the other biological factors are insignificant.

In the middle of our brain, we have a map of who we are in relationship to the world around us. If you get abused and neglected as a child, you experience yourself as worthless, bad, defective. This challenges how we can help people change these mental and neurobiological patterns of being an unwanted, unseen, inexperienced child.

This is Marty Teicher who did this analysis. If you come to our annual conference, Marty is usually a speaker and he will be speaking again year on May 19th 2022. Marty has spent his career looking at the particular areas of the brain which are affected by traumatic experiences. What he shows is how different parts of the brain get affected by trauma at different ages. Your brain is an evolving organ and trauma at age three has a very different impact from trauma at age four, at age eight, at age 15 etc., and it keeps changing. Our world of psychotherapy and psychology needs to move to a place where we don't talk generally about trauma, but focus specifically on what happened at which age, because it all has a slightly different impact.

ABUSE AT DIFFERENT AGES AFFECTS DIFFERENT BRAIN AREAS

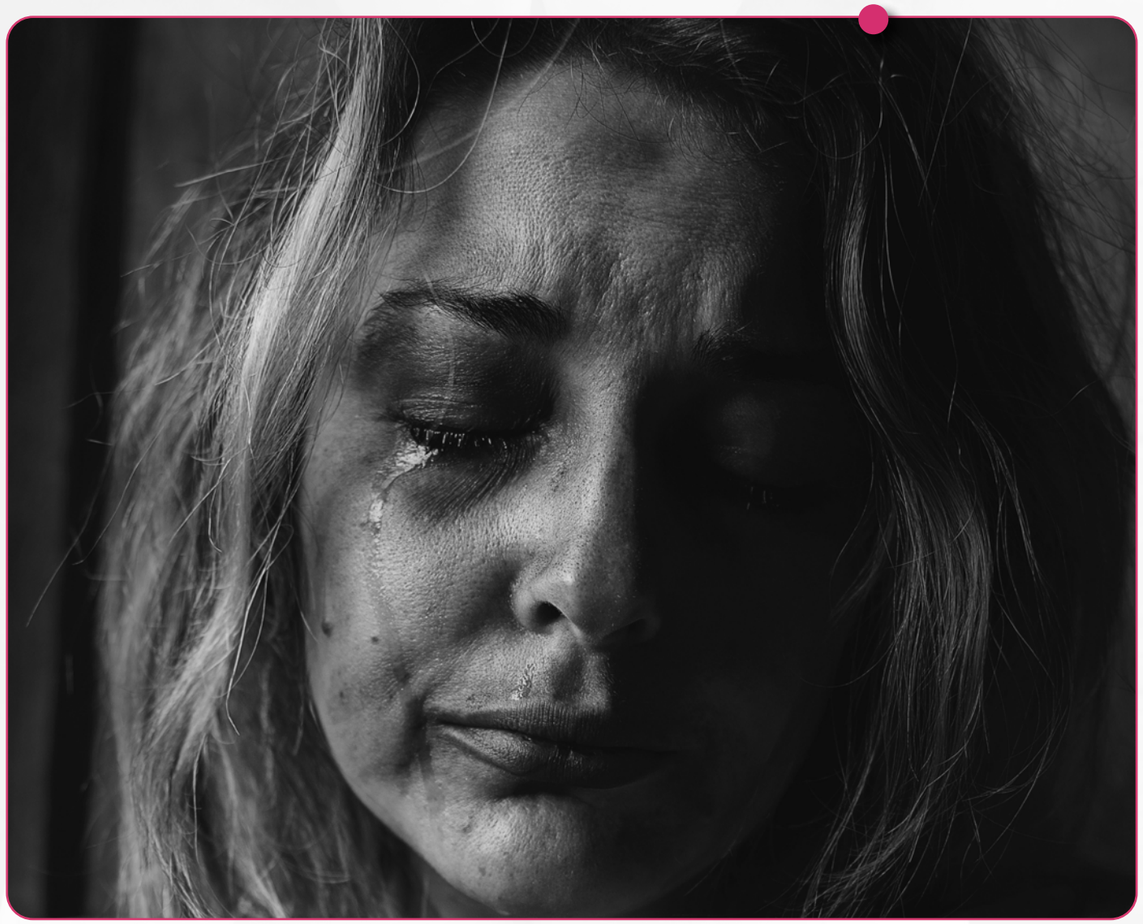
FIGURE 1. Path Analysis Indicating Relationships Between Density of Abuse During Different Stages of Development and Measures of Brain Size Derived from Structural Equation Modeling



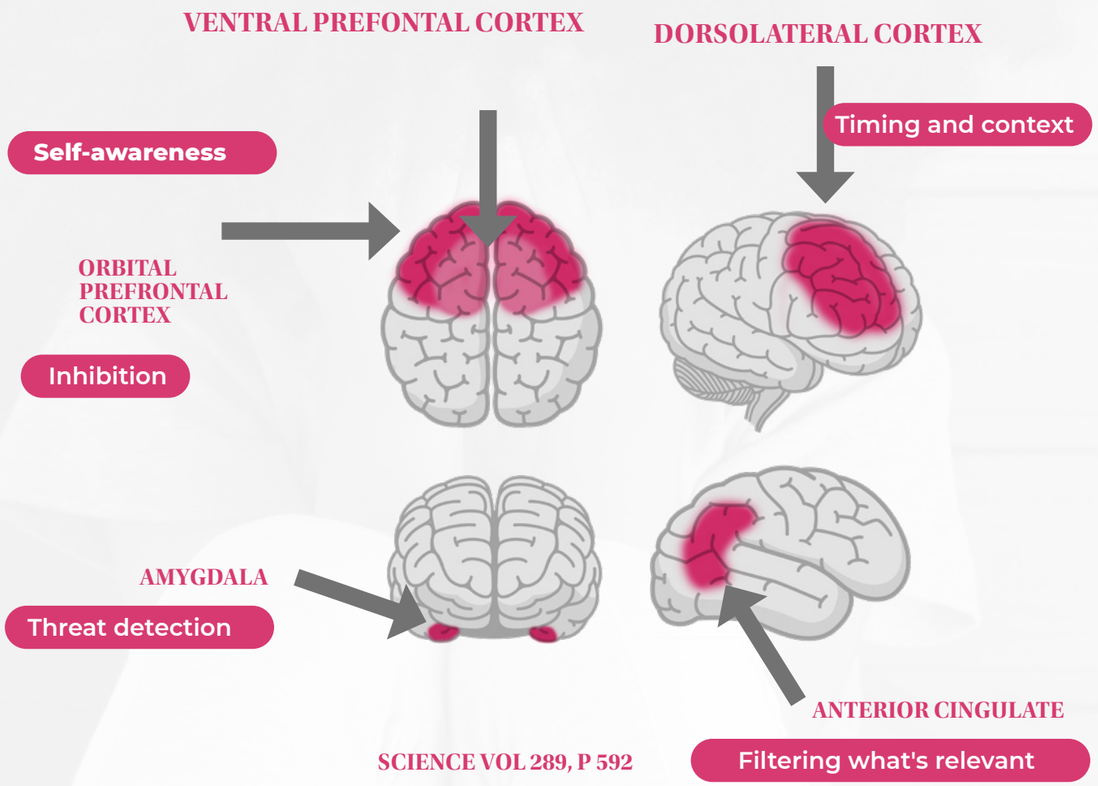
Path Analysis examined two main components. The first as that childhood sexual abuse or absence of abuse one person should predict childhood sexual abuse (or absence of abuse) during the subsequent period. The second component examined the association between density of childhood sexual abuse during each stage and all morphometric measures. Numerical values represent Standardized beta- weights and their associated p values. Light gray lines were evaluated in the model but Were not significantly predictive of any relationship between gray matter volume, respectively. Hippocampal volume as covaried by intracranial volume and list based on results of the multiple regression analyses.

Let's look at what we know today about how early abuse affects different areas of the brain, and how that causes different mental functions. Over the past 30 years, there have been a lot of studies that show the impact of trauma on the brain. I believe we must develop a discipline which is scientifically based where we don't make diagnosis on the basis of DSM 5, which is a completely non-scientific instrument,

but instead focus on what is really affecting people. Today we know that we get traumatized. One area of the brain that gets affected is the amygdala. The amygdala, I describe as the 'smoke detector' for the brain. In just about every study of the brain of traumatized people, you see that the amygdala displays different activity.



DEVELOPMENTAL TRAUMA IMPACTS KEY STRUCTURES UNDERLYING EMOTIONAL REGULATION



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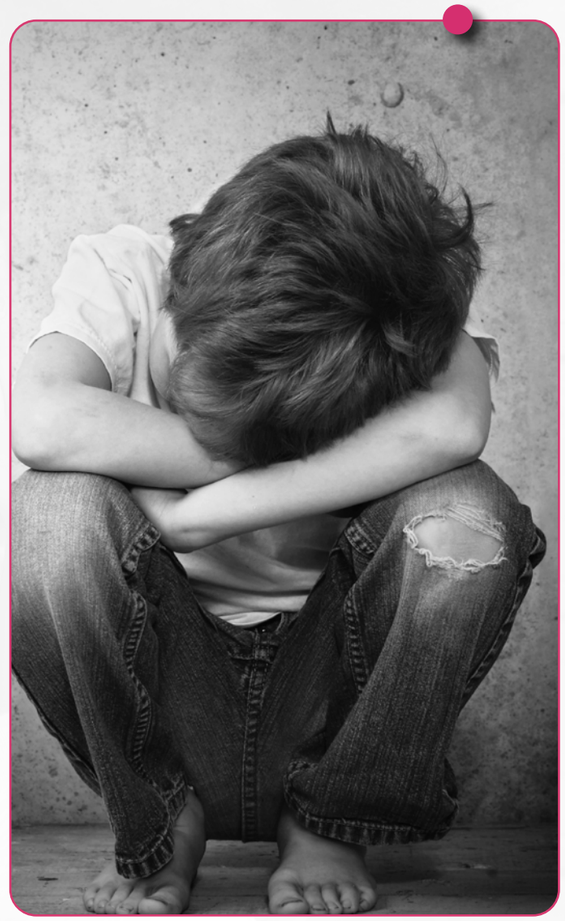
When you are traumatized, your amygdala becomes hyperactive and you start experiencing danger in way that other people don't. Or, it shuts itself down and you don't experience danger when you should be. The question then becomes, if you have this hyperactive alarm system, how do you use that alarm system to regulate yourself? At this stage of scientific knowledge, I know of only two methods that have been proven to change it.

This doesn't mean that these are the only methods. Neurofeedback, which I'll talk about later on, and mindfulness meditation have both been shown to affect the capacity of the amygdala to become hyper-reactive. There may be other ways of doing it. As scientists, we need to explore how particular methods can change one's threat detections so that we can feel safe when exposed to things that are not an actual threat.

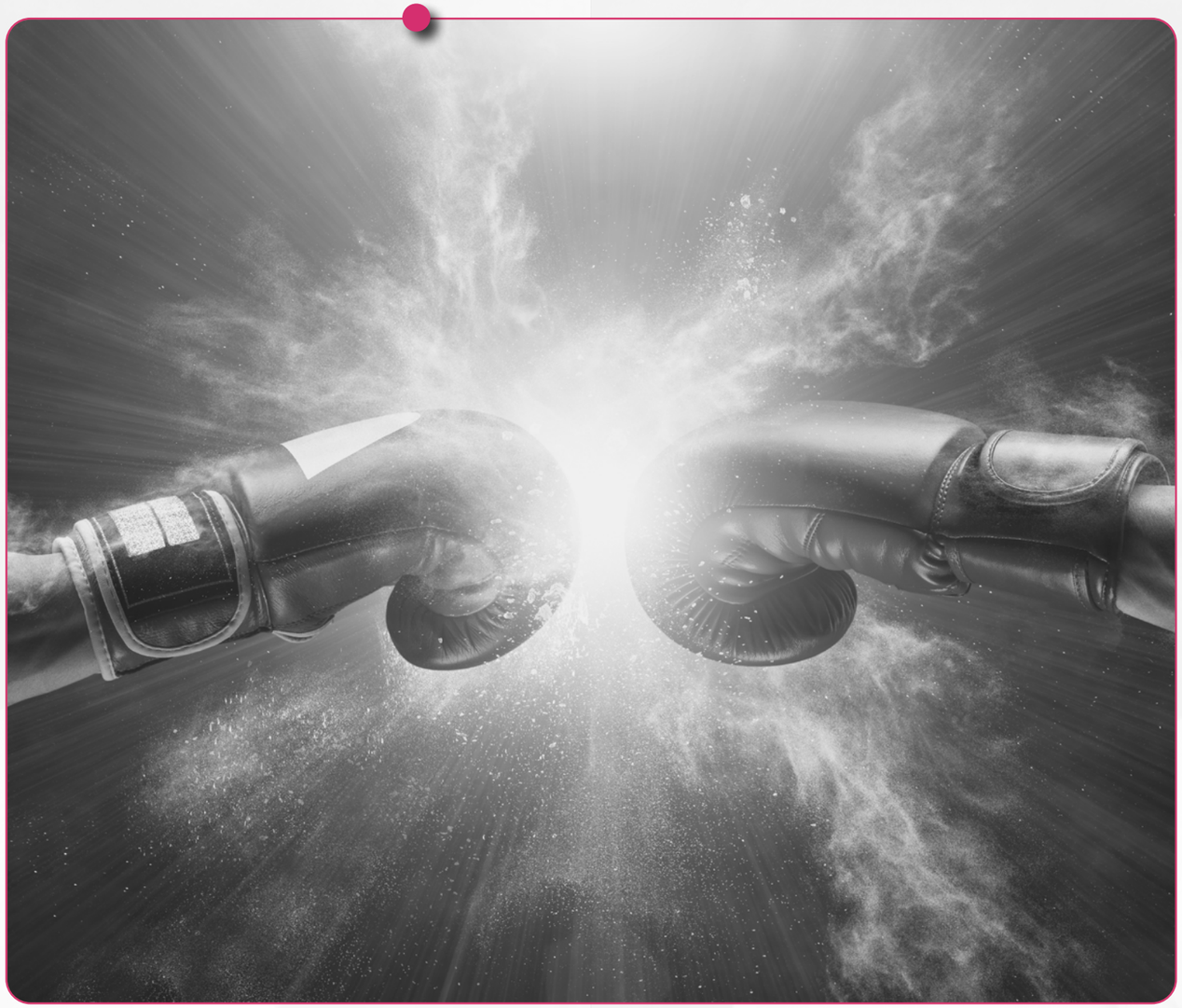
The second area of the brain that is affected by early childhood trauma is the ventral prefrontal cortex which, in my book, I call the watch tower. This is the part of your brain which allows you to see yourself and to know yourself. We get to articulate to the people who care for us, how we feel, communicate what's going on with us, and it is a very important part of parenting. Psychotherapy can help people find words for their internal experience. If you're a well taken care of child, you can tell people that this is what I feel, this is what I like, this is what's going on with me. You can communicate your internal experience.



If you are a neglected or abused child, nobody wants to hear how you're feeling and you don't develop the capacity to articulate what's going on with you. You develop something called alexithymia, an inability to articulate your feelings. One of the things that psychotherapy can do is to help people find a language for their internal experience. This is a very important part of what we as psychotherapists do for people, to help them become aware of what's going on with themselves

The next part of the brain that gets affected by early childhood trauma, particularly around age 3-5, is the orbital prefrontal cortex. The orbital prefrontal cortex is the part of the brain that helps you to say things such as, ‘even though I’d like to bite my little sister, it is probably better if I don't.’ An example I like to give, because it's part of my own personal experience, is that at some point, a baby discovers the pleasure of biting his mother's nipple. Here you are tiny little baby and you hear screaming and something starts moving and you think, wow, I'm an amazing little baby. All I do is this and the world starts screaming. I can have a big effect in the world. How pleasurable, let me do it again. The world starts screaming again, I feel I'm a powerful person. You don't realize at two months old that you're inflicting pain on somebody.

The screaming doesn't make any difference. At some point the orbital prefrontal cortex comes online and you feel that biting is really fun. However, mom gets angry, she starts yelling at me and pulling the nipple away. Maybe I should not yell or not bite anymore. The orbital prefrontal cortex is the part of our brain that helps us to inhibit ourselves and to not to be impulsive. If you're a traumatized child, you tend to be very impulsive and do whatever your emotions tell you to do. Our world is filled with juvenile delinquents and people who are impulsive and aggressive, they go to juvenile programs to be taught that they should learn to inhibit themselves. What are these programs based on? They're based on finger wagging.



You see, if you keep doing these terrible things, things will happen to you. If you do these things, you'll go to jail. It doesn't make any difference because if you don't have an orbital prefrontal cortex, you don't understand the consequence of your actions. You're incapable, you don't have a finger wagging receptor in your brain. The question then becomes, how do you help people to learn to inhibit themselves?

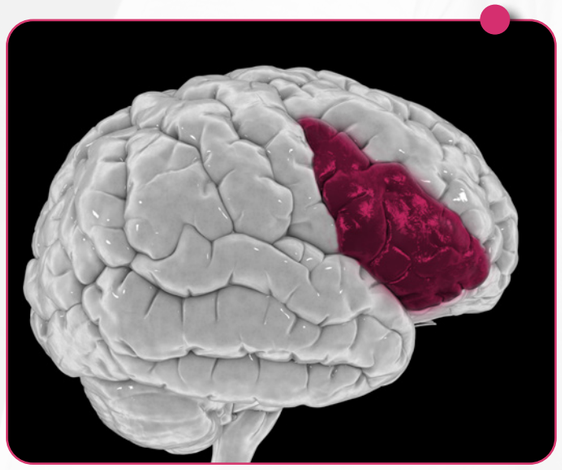
Before you went to Robben Island, you were the head of the terrorist army, you bombed police stations, you bombed gas stations and people knew you as quite an angry person. Then, you go to prison for 27 years and you come out as this very calm Saint-like person. What do you think happened to you in prison that caused this transformation for you?’ And he says, "Of course, many people have asked me this question. What was probably most helpful for me was boxing." ‘Boxing? That's sort of counterintuitive’. He says, "No, no, you clearly don't box. Because when you box, you need to know exactly where your body is. You need to know what the other person is going to do to you. You need to anticipate where this other person is going to hit you. As this person is hitting you, you need to plan how you're going to get back to him. You need to hold yourself back and to plan for the future. I think that's what I learned from boxing."

I say, ‘that makes a lot of sense, because this is the exact circuitry that gets affected by trauma. Learning how to really inhibit yourself and plan even when your life is in threat can be a very powerful experience’. I wish that somebody, someday would do a study on martial arts, capoeira and boxing as a treatment for traumatic stress in kids. But because the world of the psychotherapist is that of one who loves to talk to people, that is very unlikely to happen.

The story I like to tell is about an encounter I had. I was very lucky, I was involved in the Truth Commission in South Africa. One evening, at a reception at Nelson Mandela's Presidential Palace in Cape Town, I get to talk to Mandela and I ask him, ‘Mr Mandela, I'm a psychiatrist, I'm part of your Truth Commission, and I've always had a question that I'm very curious about?’

Maybe, as we now know something about how these things function, we need to expand that consciousness into doing things that don't necessarily depend on talking and understanding alone.

Self-awareness inhibition. The next piece that gets destroyed by trauma is the dorsolateral prefrontal cortex. What does the dorsolateral prefrontal cortex do? It allows you to connect the past with the present, with the future. Some of you may have seen my interview with Ezra Klein in the New York Times. When it came out, Ezra had cut out what was for me was the most interesting part of our interview. We talked about imagination and he said, "I've got a two and a half year old child and last month he got to understand the concept of tomorrow and yesterday. And because he's able to think about tomorrow and yesterday, I saw enormous improvement in his capacity to imagine different outcomes."



If you are locked in the present, you cannot imagine how things can be different. If you know the difference between now, yesterday and tomorrow, you can anticipate that maybe tomorrow will be a different day. This is very relevant for trauma because when you feel traumatized, you feel like this will last forever. We have all been there. We've all have had tragedies. No life is easy. When you receive a horrendous piece of news, somebody who you love dies, or somebody who you have relationship with dumps you, you get thrown into this state where you may feel like you'll never get better. You'll never recover from this. This is just too painful to experience. You get frozen in the misery of the moment. At some point though it is over. You start being able to anticipate that maybe if you go to New York tomorrow and walk through Central Park, you'll feel better. Or maybe if you go for a bicycle ride along the ocean, you'll feel better.

Once you start being able to imagine a different future, you start being able to get out of the misery of the present. A very big thing in trauma is that people feel like what's happening is actually something that happened in the past. They are being triggered from an older event in the present. A very important part of trauma healing is to activate a system that allows you to see that the past is different from the present and that is also different from the future. Any treatment that does this, can be helpful.

Finally, another part of the brain that gets affected by trauma is the anterior cingulate. The anterior cingulate is the part of the brain that filters out what's relevant and what's irrelevant. We'll get back to that later on. When you are traumatized things that for other people are not important or irrelevant, become intrusive in your life. Important versus unimportant.

How do we help people to develop a filtering system? It's a very big challenge. I don't have the answers to any of these questions at this point in time. What we know is that neurofeedback, for example, is capable of helping people to build up their filtering system. As far as I know, talking and psychotherapy probably doesn't help that much. In our work with psychedelic agents, we have found that psychedelics can help people get a better sense of filtering out what is relevant and what is irrelevant. These are the core issues that we are confronting when we deal with trauma in ourselves and other people. These capacities in the brain can breakdown.

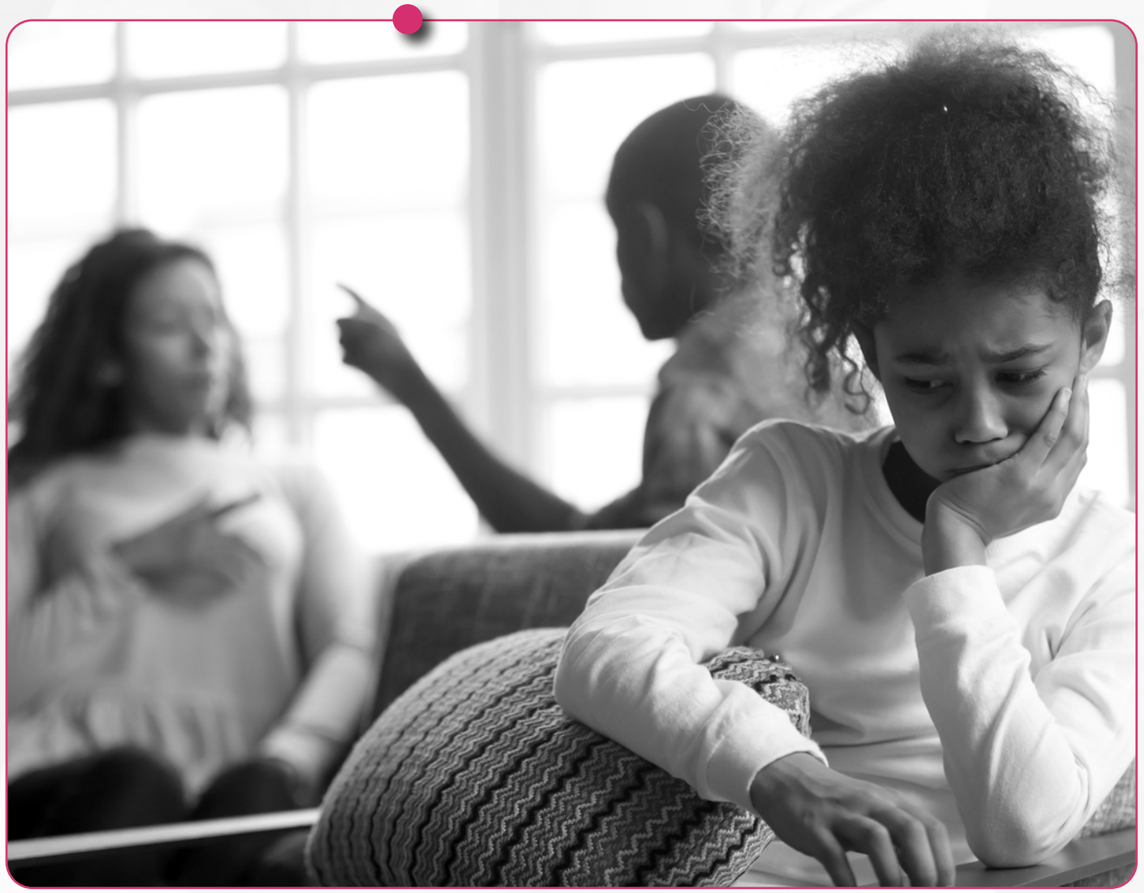
The next thing is that when we defined PTSD from DSM, back in 1980, we were at the VA. The people who were involved in the creation of this diagnosis were working with veterans. We saw these veterans being unable to be kind to each other, to be kind to themselves. They were having tremendous sleep problems. They were having tremendous problems with affect regulation, blowing up at people. That caused a group of us back then in the late 70s to get together and to create the diagnosis of PTSD, which was based on our observations of soldiers. The way we defined it back then was that this was the response to an extraordinary event that's outside of the usual human experience. In retrospect, it's amazing how ignorant we were, we thought that the trauma was extraordinary and very unusual. It turns out that a third of all couples engage in physical violence.

A quarter of all children get assaulted. About one out of five children gets sexually molested. The amount of rape going on is horrendous. Trauma is not always an unusual experience outside of the usual human experience. It is extremely common. In popular imagination, people still often connect trauma with soldiers. The big issue is that trauma often occurs to children. About almost three quarters of all children have traumatic experiences. A recent article in the Journal of Pediatrics, showed that about half of all children in Asia, Africa and North America witness horrendous violence. It's extremely common for children to experience trauma.

HOW DO CHILDREN PROCESS TRAUMA?

This again is a very important issue. The critical issue of whether something becomes traumatic for children is their relationship with their parents. As long as your parents are there for you, are attentive and know what they're doing, by and large, you don't get traumatized. A good example of this is a study that was done by Anna Freud and her friend, Dorothy Burlingame, in 1946 in London. During the second world war, London was being bombed by the Germans.

A lot of death and destruction. A lot of houses were bombed. A lot of people got killed and those good old Brits said, "Oh, this is terrible. It's happening to our children. Let's get our children out of London and put them in the countryside so they get taken care of where they can feel safe. When the war is over, they can come back and this will have prevented them from getting traumatized." A lot of children in London were sent to the countryside.



One of these children was Oliver Sacks, whom I have an enormous love and admiration for. Oliver Sacks was a typical poster child for it. What happened back then happened. He wrote his autobiography just before he died and said, "I've had two terrible experiences in my life that marked me. One of which was being sent off to the countryside in the second world war, which was a very bad experience for me because I got separated from my parents."

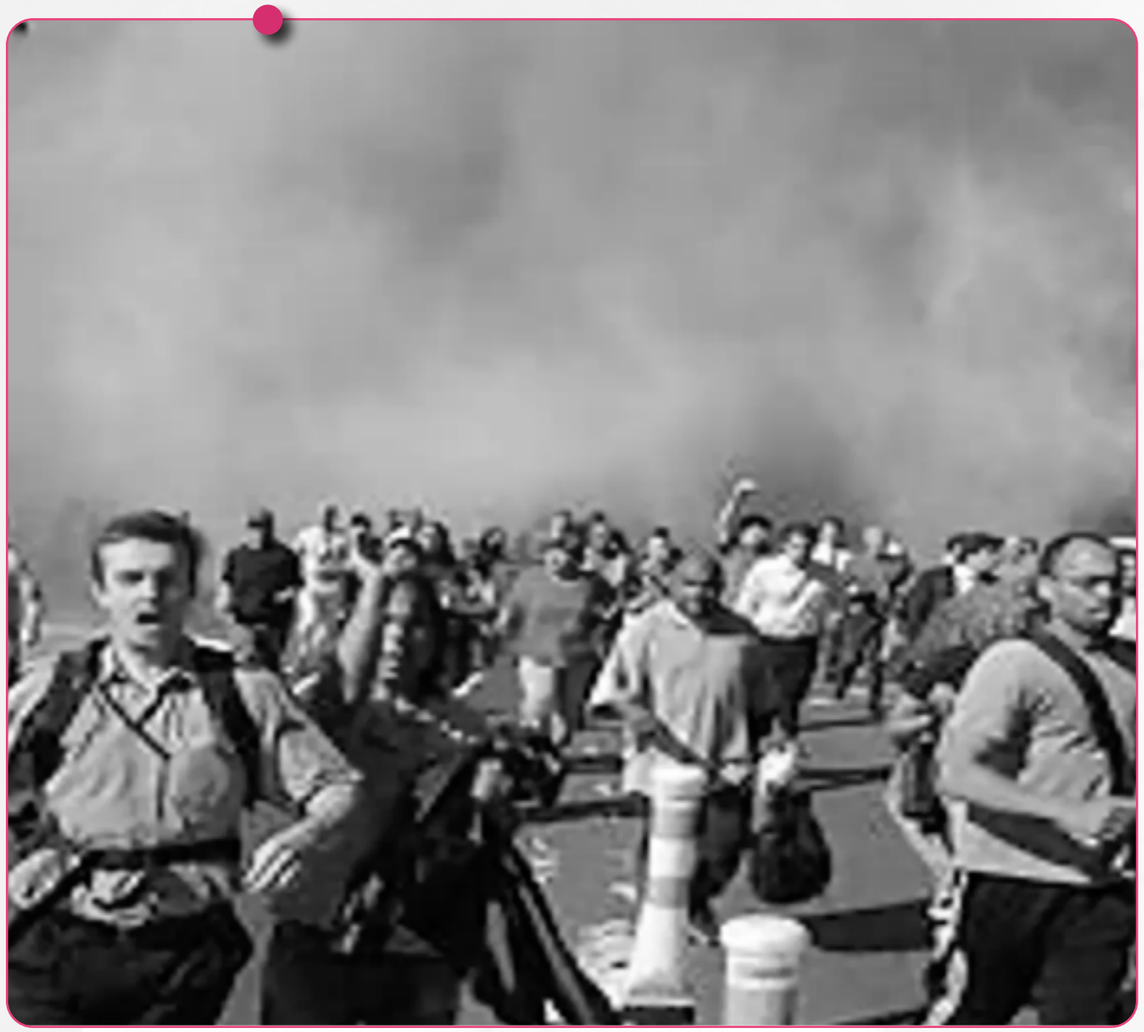
And he says the other traumatic incident was when he came out as gay and has told his mom, "Mom I'm gay." And his mom spontaneously said, "I curse the day you were born." Of course, when you say something like that to a child, you can't take it back. And that's the reason why Sacks moved to America. It was so incredibly hurtful that his mom reacted that way.

Anna Freud looked at the children who went to the countryside and those who stayed in London. It turns out that the children who were bombed in London with their parents did okay. But the kids who were sent to the countryside were traumatized by the separation from their parents. I think it is true that terrible things happen to people all the time.

If the people you count on are there for you, if those people you look after you, it probably doesn't become a trauma. It suddenly becomes a trauma when the people around you pull away. Our attachment system is the most powerful protector against trauma.

Let me give an example of a child who didn't get traumatized. He is a little boy called Norm Saul whose picture I took on September 15th, 2001 when he was five and a half years old. I took that picture four days after the attack on the World Trade Center and Noam had just started going to school in PS 234 in Manhattan. That morning he went to school at quarter to nine in the morning.

Seven minutes later, the plane hit the first building of the World Trade Center. This terrible thing happens and all pandemonium breaks out. Noam and his class run downstairs. His parents run back to nursery school and suddenly become two people out of 50,000 who that morning were running away from this very dangerous scene.



I love to show this picture. I often show this picture and ask therapists, what do we see here? And therapists almost invariably say, "I see panicked people. I see terrified people." It's very unusual for therapists to say, "I see people who are running." In fact, what you see here is people running and that's important because it shows is if something terrible happens to you, you can move and run away from it.

If you can activate your fight flight response, you're probably going to be okay. And so moving is the first thing that you need to do if something terrible happens to you. And what's become more and more obvious is that something becomes traumatic if 1, the people who care for you, go away and don't support you. And 2, there is nothing you can do to change the situation, if there's no action you can take.

I think in order to overcome trauma. people need to learn to take action and feel in their bodies that they are capable of actually taking charge of their lives. A very telling sign of being traumatized is that you cannot move and for the rest of your life, you stay in a relatively immobile situation. So, action therapies are very important to helping people to overcome their trauma.

So, Norman is running down 8th Avenue in New York. This gave me a flashback to last page of my anatomy textbook in medical school. Frank Nether, who all of us physicians had probably heard of in medical school, he really got it. When people get traumatized, when people are exposed to something really scary, their frontal lobe shuts down. You can't think very clearly and your limbic system takes over. And the primitive part of your brain, which is in charge of making sure that your body is okay, takes over.

So when something very threatening happens to you right now, if there's an explosion right now where you are, or a fire breaks out behind your computer you're looking at, you're going to get up and run away from it and look for something to put out the fire. And you won't think very much because if you think too hard, it will take too long to come to a conclusion. So it’s a condition for extreme threats, your limbic system takes over, the primitive part of your brain that we share with all other animals, you automatically move and do things. When the threat is over, hopefully you calm your body down and you think, thank goodness I didn't get hurt, and things become quiet again.

The nature of trauma is a reaction happens and you get stuck. So your limbic system, that primitive survival part of your brain, is running the show and on a regular basis your body keeps reacting as if it's under threat, even though the threat is actually over. What this means is that the location of trauma is deep down in the survival part of your brain. And the treatment of trauma is basically limbic system therapy. You need help to calm down the survival brain, so it feels safe and that's not by understanding and talking primarily, but more about the body having an experience of feeling safe and taken care of.

When you're traumatized, this part of your brain runs the show, that primitive survival part of your brain, and the part of your brain, the rational understanding part of your brain, isn't working very well. So the treatment of trauma should Be increasing the capacity of your frontal lobe to take over, the rational, thoughtful part of your brain, and for your limbic system to feel safe and calm, so it doesn't take over on a regular basis. As long as your limbic system is running the show your body will take over. And that's certainly something that my colleagues, Stephen Porges and Peter Levine, talk about in much more detail, because it takes place on this unconscious deep somatic level of the body and the brain.

So how you can help people calm down their limbic system, is by holding them and helping them calm themselves by touching etc. Remove?

Helping people to feel safe becomes terribly important. And that's what happened to Norm. So Norm was a safe child. His parents were there for him. He was exposed to this terrible experience. I saw Norm on September 15th, 2001, his parents, they live right next to the World Trade Center. We walked down into the pits of the World Trade Center where his mom knew some of the workers. We walked through rescue crews. We see all the stench and the horror of what happened there and we go back to their apartment.

When we arrive at the apartment, I see this five and a half year old boy, and he proudly shows me this drawing. And I say, "That's an amazing drawing, Norm. What did you see here?" And he says, "I saw this plane flying in the World Trade Center and there was a lot of smoke and fire.

I saw people jumping out of the World Trade Center and here are the firefighters who came to try to help people. It didn't work. And here is telephone booth that is no longer working, so nobody can call anybody."

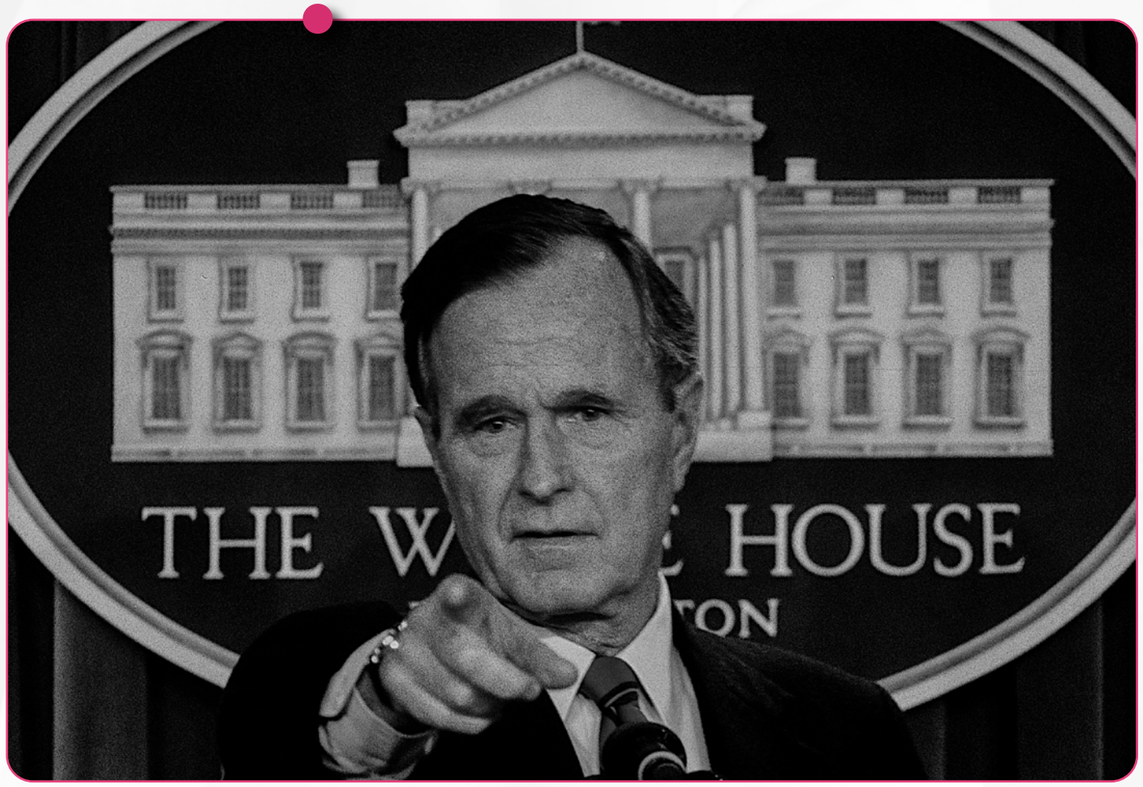
And I asked this little boy, "So what's this thing over here?" And he says, "That's the heat because when the plane hit the World Trade Center, there was this fireball and the heat of the fireball came through the window of our classroom and I thought we were going to burn up." That's how people remember trauma, not as a story, but as a physical sensation. For example, everybody who I have met who was in the World Trade Center that day and survived, as they went down the stairs they were triggered by the sounds of this gigantic building coming apart. The sound of this disintegrating building denoted terror. That sensation became their traumatic trigger. And telling the story about what happened, doesn't really help. In order to treat them, we need to help them to desensitize to that particular auditory sensation.

Then I say to Norm, "So what's this black thing over here?" He says, "That's a trampoline." I say, "What's a trampoline doing there?" He says, "Oh, so that when people jump out of the World Trade Center, they'll be okay." I'm amazed, he's a five and a half year old boy who can do what 85% of the American public couldn't do.

The day before I met Norm, the President appears on TV. I'm very much looking forward to what the President will say, because I know that what the President says will determine the course of history.

And the opening lines of what President Bush says, horrifies me. His opening line is, "We will pursue them to the end of the earth. And we will take them dead or alive." And I think, "Oh my God, this man is a limbic man."

He'd been hurt and because he's been hurt, he needed to kill somebody''. As a result, the American public fully supported going into Iraq, which had nothing to do with the attack on the World Trade Center, and killing hundreds of thousands because we got hurt. A disastrous thing in world history that resulted in unbelievable havoc.



And here is a five and a half year old boy who says, "No, what we should have done is to build a trampoline." What Norm chose is to imagine instead is that if we had brought a trampoline there, these people would have survived. And this is what we have a frontal lobe for, to imagine alternative outcomes. That is really what treatment should be about. What is not productive is getting people to talk about a trauma over and over again, that is not useful.

The issue is that trauma destroys your imagination. The important thing to do is to help people open their minds to other possibilities. Let's imagine you have been raped and somebody touches your shoulder. The moment somebody touches your shoulder, your automatic reaction is I'm getting raped. Our job is to help you see that if somebody touches your shoulder, maybe that's because they are unsteady and they are attempting to steady themselves. Maybe somebody is happy to see you. Maybe somebody trying to attack you. You can hold back and imagine a variety of outcomes.

SO ANY SORT OF TREATMENT THAT HELPS TO EXPAND PEOPLE'S IMAGINATION IS A GOOD TREATMENT

After you get traumatized, you live in a different world. You see the world differently. You live in a different reality. The way we first find this out many years ago was when I was just starting the trauma center, my colleagues, Nina Murray and Lisa Colby saw a group of children and did projective testing on them.

They cut out a little piece of newspaper depicting a scary scene which they showed to a group of very traumatized children and a group of children who were living in a housing project who had tough lives, but who hadn't seen horrendous family violence. The children from the housing project were not traumatized to see the picture. They could see it was going to work out okay.

The traumatized kids see the world differently. When we showed this picture to the group of very traumatized children, the younger ones became agitated, became scared, they became angry and started throwing things around and destroying toys in the playroom. The older traumatized kids say, "Oh, this boy's smiling because he hates his dad.

And he's about to drop the car on his dad and there's blood all over the place, and the girl is smiling because she going to bash her father's head in." And so these traumatized kids see a world full of violence. They can't imagine anything other than terrible outcomes.

MURRAY,KOBY & VAN DER KOLK,1991

This again raises the question of how can young help people to create a new reality for them to live in? Theater might be one of them. This is a picture from a UNESCO book, United Nations Children's Organization which was on my parents' coffee table, I saw it as already as a little child. I come from a very sexually impressive culture and I did not notice as a child that this woman was pregnant. Every kid in Boston that we showed this picture to immediately saw that this woman was pregnant. They were more realistic than I was as a child.

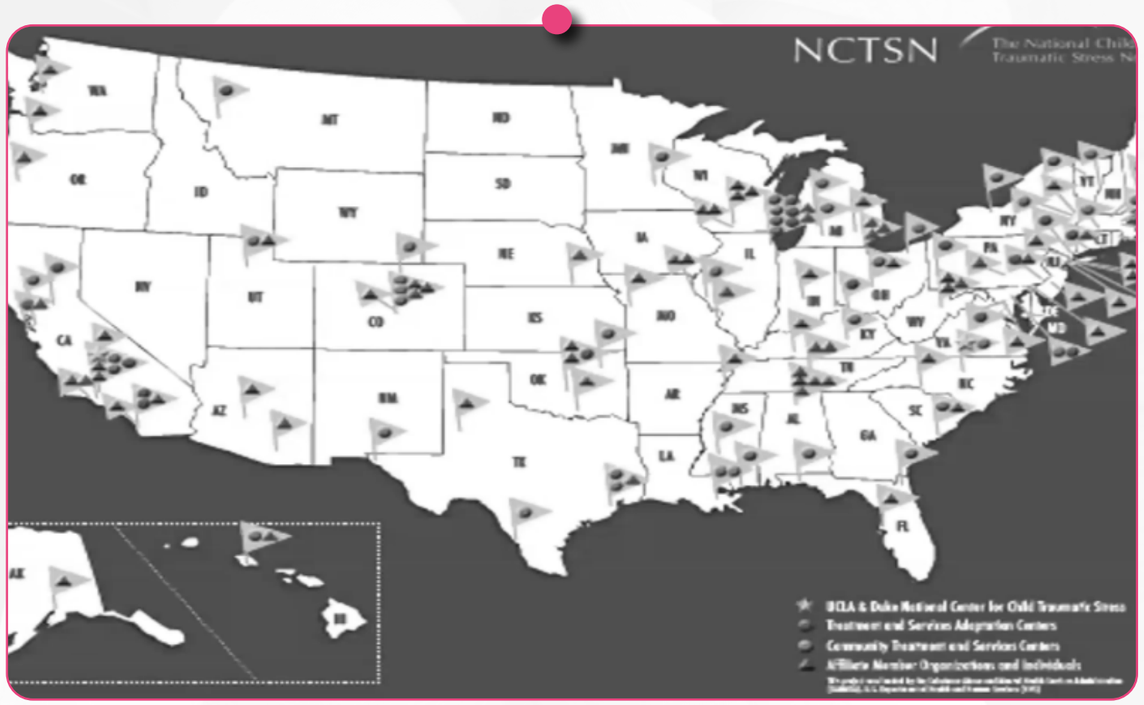
But the stories are very different. The non-traumatized kids say, oh, the woman is pregnant, her husband is off to war or her husband is away, and she's wishfully hoping he'll come back. In the end, everything is going to be okay because normal human beings are optimistic. The traumatized girls, the sexually abused girls, had a startling response. At that point in my life, I used to hang out to lot with Judy Herman, who talks a lot about victims and perpetrators and how you get sexually abused. Somebody does something terrible to you that makes you scared and inhibited.

Nina Murray, who administered these tests is a very imposing, serious, elderly woman. Although I knew her very well, I would never use a four letter word in front of her because I was always very respectful to her because that's what she evokes in people. But these sexually abused girls would say to the Nina, "How often do you hump? What's your favorite sex position?" They were sexually aroused by this particular picture. If this picture, which is barely sexual, gives you a feeling of sexual arousal, then the whole world must be filtered stimuli that makes you sexually aroused. So this picture really brought home to me that when you are traumatized, you live in a different internal world.

You see the world differently. You experience things differently from the way that other people do. The more we start working with the kids, the more we understand the development of children's trauma and how children's trauma affects the world. In 1999, I received a phone call back from a foundation called the Cummings Foundation that said, "Dr. van der Kolk, I've been following your work. We are very interested in you doing a study for us." And I said, "What would you like me to study?" "We'd like you to study the impact of trauma on learning in children." And I said, "That's a very important topic. Of course it has been quite well studied already. Do you know the work of Dante Cichetti?" "No." "Do you know the work of Frank Putnam?"

He said, "No." "Do you know the work of Alan Sroufe?" "No." I said, "So the issue is not that the work has to be done, the issue is that people don't know about this work."

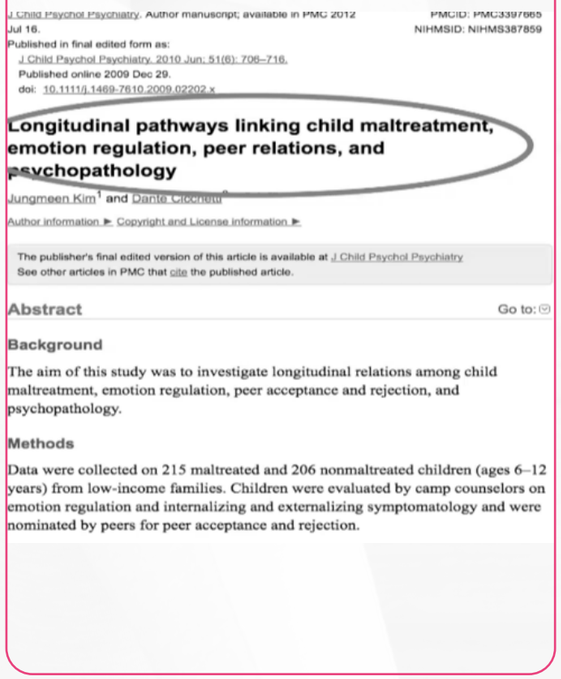
There is something about our education system that leaves out the issue of child development and trauma. The studies already are there. We also need to do more studies, but studies are of no use if people don't learn from them. We need to bring education about childhood trauma into professional programs and make people aware of the impact of trauma on children's capacities. Eventually, we went to Congress, we set up the National Child Traumatic Stress network with locations in just about every state. Why just about every state?



Because with politics, you need to have senators to bilaterally support your program. And every year it comes up for renewal. I need people in Texas, South Dakota and Oregon to all agree that there has been progress. But what people did not learn was about developmental psychopathology. Dan Siegel talks about available psychopathology, so we know that we have learned important things.

The first person who comes to mind is Dante Cichetti. Dante Cichetti was a junior faculty member with me at Harvard when we first started. He was a brilliant man. He started summer camps for traumatized and non-traumatized kids. He was able to make movies and to observe how these kids interacted differently, how they had different peer relationships. He was able to really look at the complexity of adaptation by observing them.

He was the first person who really pointed out how a child maltreatment leads to problems with emotional regulation, friendships with other people, becoming depressed, becoming hyperactive, et cetera. And he was the person who really brought this to people's attention, more than anybody else. Dante was also one of the first people who pointed out to us, how trauma at different ages has a different effect on people. And so you need to be much more precise on what has happened to people at particular times, so we can actually change that.



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Longitudinal pathways linking child maltreatment, emotion regulation, peer relations, and psychopathology

Jungmeen Kim[1] and Dante Cicchetti[2]

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Abstract Go to:

Background

The aim of this study was to investigate longitudinal relations among child maltreatment, emotion regulation, peer acceptance and rejection, and psychopathology.

Methods

Data were collected on 215 maltreated and 206 nonmaltreated children (ages 6–12 years) from low-income families. Children were evaluated by camp counselors on emotion regulation and internalizing and externalizing symptomatology and were nominated by peers for peer acceptance and rejection.

What is also interesting is that Dante was a very creative, unusual, thinking outside of the box kind of person. When he came up for tenure at Harvard, people said, "This is not important to study." So he didn't get tenure and was shipped off to Rochester, New York. So for your career, it may not be very helpful for you to have important new ideas. For your career, it's much better to do same thing, because your professor will approve of you much more if you don't rock the boat the way that Dante Cichetti did.

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Dimensions of child maltreatment and children's adjustment: Contributions of developmental timing and subtype

JODY TODD MANLY, JUNGMEEN E. KIM, FRED A. ROGOSCH, AND DANTE CICCHETTI
Mt. Hope Family Center, University of Rochester

Abstract
This investigation examined the dimensions of developmental timing, subtype, and severity of maltreatment and their relations with child adaptation. The 814 children who participated in a summer day camp, 492 of whom were maltreated and 322 of whom were nonmaltreated comparison children, were assessed by camp counselors on their internalizing and externalizing symptomatology, aggressive, withdrawn, and cooperative behavior, and on personality dimensions of ego resiliency and ego control, and were rated by peers on disruptive, aggressive, and cooperative behavior. The severity within each subtype of maltreatment and the developmental period in which each subtype occurred were examined through hierarchical regression analyses. Additionally, children with similar timing or subtype patterns were grouped to explore diversity in outcomes. Results highlighted the role of severity of emotional maltreatment in the infancy–toddlerhood period and physical abuse during the preschool period in predicting externalizing behavior and aggression. Severity of physical neglect, particularly when it occurred during the preschool period, was associated with internalizing symptomatology and withdrawn behavior. Additionally, maltreatment during the school-age period contributed significant variance after earlier maltreatment was controlled. Chronic maltreatment, especially with onset during infancy–toddlerhood or preschool periods, was linked with more maladaptive outcomes. The implications of measuring multiple dimensions for improving research in child maltreatment are discussed.

The extant literature on child outcomes of maltreatment has documented mounting evidence of the deleterious consequences of abuse and neglect for child victims (Cicchetti & Carlson, 1989; Cicchetti & Lynch, 1993, 1995; Cicchetti & Toth, 1995; DeBellis, Baum, et al., 1999; DeBellis, Keshavan, et al., 1999; Kaplan, Pelcovitz, & Labruna, 1999; Kendall–Tackett, Williams, & Finkelhor, 1993; Pollak, Cicchetti, Klorman, & Brumaghim, 1997; Trickett & McBride–Chang, 1995; Widom, 1989). Negative sequelae have been found for maltreated children across multiple domains of functioning and across many developmental periods. Consistent findings have emerged that maltreatment increases the risks for maladaptive outcomes and the develop-

We appreciate the cooperation of the Monroe County Department of Social Services. This research was supported by grants from the William T. Grant Foundation, the Office of Child Abuse and Neglect, and the Spunk Fund, Inc. We would like to thank Michael Lynch, Robin Sturm, Peggy Gold, Kurt Olsen, and Enid DeJesus for

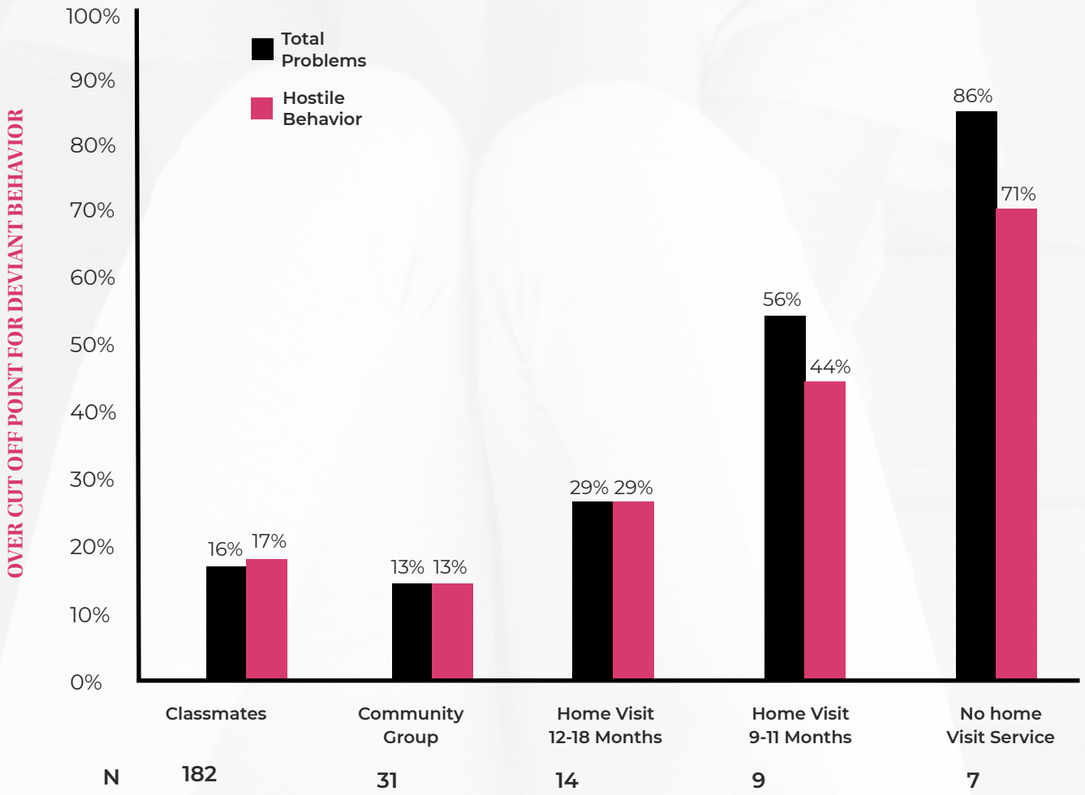
The next person who was really important to talk about is another colleague of mine, a developmental psychopathologist, who really introduced the issue of the attachment system, Karlen Lyons Ruth. Karlen started to study something that's of great interest to me. My own interest in this issue started when I was a medical student at the University of Chicago Billings Hospital. And as a 24 year old, I delivered something around 20 children to 13, 14, and 15 year old girls. That's quite an experience for a young man.

And one of the things that struck me back then was that these young mothers had no visitors. I said to them, "So I noticed that nobody has to come to visit you. How are you going to take care of this kid?" And their answer was horrifying. They said, "Doc, don't worry about it. I've always wanted to have children. We'll go home and take care of each other."

Even as a 24 year old boy, I knew that children do not take care of their parents. It's a one-way street. I thought, what the hell is going to happen to these kids and their mothers? That's the sort of question that intrigued Karlen. So, she collected a group of around 125 teenagers who'd given birth to children at the Cambridge Hospital. And two years later, she made home visits and it turned out that of these two year old children, 86% of them had major behavior problems, largely of the aggressive variety.

Now in our culture, if you're a two year old pain in the ass kid, it's very unlikely that you'll ever get off that trajectory. Sometimes people do, but you need to have a lot of input, a lot of resources to do that. Most people in our culture don't have it. You're back into the whole issue of inequality.

TOTAL PROBLEMS AND HOSTILE- AGGRESSIVE BEHAVIOR IN KINDERGARTEN BY INITIAL RISK STATUS AND MONTHS OF SERVICES PROVIDED



Karlen sees these very disturbed kids and, like the good researcher she is, she does research on what is the most effective intervention for this situation. She discovers it's a program by David Alt developed in Baltimore in mother child intervention therapy, where you go into the home and you show mothers how to hold their babies.

You show mothers how to respond, it's a physical experience, you don't give classes on how to mother your child. You do it, you show it, you're there. You don't abstractly show it because that doesn't work.

COST % BENEFITS OF EARLY INTERVENTION

Perry Preschool Program[b] (Schweinhart, Barnes and Weikart (1993))	**$ 19,162**	Weekly home visits with parents; intensive high- quality preschool services for one two years	2.3 versus 4.6 lifetime arrests by age 27; 7% versus 35% arrested or more times
Syracuse University Family Development (Lally,Mangione and Honig (198899	**$ 54,483**	Weekly home visits for family; day care year round	6% versus 22% probation files; offenses were less severe

JOHN HACKMAN, NOBEL PRIZE IN ECONOMICS 2000

This intervention is so effective that a man by the name of John Heckman won the Nobel Prize in economics, back in the year 2000, studying this program and learning that for every $1 that society invests in helping mothers to raise their children, in the long term, society harvest $7 in benefits, in terms of people not getting arrested, people not committing crimes, people finishing high school, people being able to get a job, people being able to pay taxes. It pays off handsomely.

Every other wealthy country in the world, aside from the U.S., has researched and very generously helped mothers by giving them resources about children. I've just learned yesterday, that in France, 3.5% of the national budget goes into helping mothers to raise their kids. In the U.S. it's less than one percent. So the U.S. is the one country in the world that doesn't give parental leave, that doesn't pay people well while they have babies. And we pay for it.

For example, in the Netherlands, where I grew up, the current incarceration rate is 68 per 100,000 people. In the U.S., which doesn't have this help for people to raise their kids, the incarceration rate is 940 per 100,000. 68 versus 940. So, we can continue doing what we are doing, but we pay for it. You pay for it either at the beginning, or you pay for it at the end. In the end, so much of what we are doing is political. . It's very important for us as clinicians to be politically active and to use the knowledge that we have to inform people about the importance of these issues. So, going back to Karlen, she starts this intervention, and after about half a year these kids are doing much better.

Then, something happened which frequently happened to those involved in active intervention for trauma for children is, her funding gets stopped. It's happened to me a number of times, happened to Frank Putnam, happened to almost everyone I know. There is something in our culture that appears to actively go against people doing something for kids.

We have this notion that we are here for children, but in fact, we are not. Our cultural system is not here to help children. So, Karlen loses her funding. As she has a bit of money left, she uses that to continue to treat about a third of the kids who she has been treating. Another year later these kids are almost the same as the controlled children who have safe parenting. So, this is an intervention that pays off. Then, the next thing that Karlen does is, she takes videos, and the videotapes that Karlen takes are very profound.

And what they show is a two year old kid playing on the floor, the mom comes into the room, and you see the kid looking up, happy to see the mom, smiling, she picks the kid up, and if you look really carefully you see that there is something not quite right, but nothing particularly alarming. The kid has moved back a bit as if to say, "Hey, mom, you are more interested in showing the movie-makers what a good mom you are than really paying attention to me." Six months later, the kid is playing on the floor, mom comes in, baby looks up, baby looks away, mom picks the baby up, and the baby stiffens as if to say, "Something isn't going right here."

And six months later, mom comes into the same scenario. She comes into the room, baby looks up, baby looks away, baby falls on the floor, mom picks the baby up, and the baby doesn't respond, moves the body back. And I think, "Wow." The moment I see those movies, it helps me to understand something that I've never understood, namely, how do people get to abuse their children? Because child abuse is against the law of God and man. The purpose of life is to create healthy children. So, how do we get to do terrible things to kids that damage them?

When I see these movies, I think, "Now, that's how it goes." These moms are quite traumatized themselves, and they don't have a very high regard for themselves, they think that this baby is going to make them feel better. Somehow they're out of tune with these babies because their own parents were out of tune with them, and they don't know how to be in tune with this baby. They do their best, but they don't respond properly, and the baby becomes scared of them. Then, the babies make them feel even worse about themselves. When the baby makes them feel terrible about themself, it makes them feel even more inadequate.

It becomes an alienable object that confirms what a bad person they are, and then it's very easy for child abuse to happen.

So, that is something that you see very clearly, and what Karlen shows is that you need to have an attachment system that helps you to calm yourself down and to regulate your stresses, and that physical contact is a critical factor of growing up well. So, in this videotape you see all the ways in which there is a disrupted attachment of teenage mothers and their children. Now, that's all that happens at that point. Then, real life and politics reappears, about 12 years after that study comes to an end, the priest abuse scandal breaks out in Boston.

It turned out that 298 priests in the archdiocese in Boston had been abusing children. And this creates a lot of turmoil, including from the Catholic church who fund people to create a false memory syndrome to say, "No, these memories are false memories instilled by terrible therapists, like Dr. Van der Kolk or Dr. Judy Herman or Dr. Bruce Perry, they instill these false memories in children that they got abused."

In fact, there are a very few false memories. The only condition under which false memories are created is during custody disputes where one parent fights with another, where they have a great investment in their kids telling stories about their partners that may not be true. But otherwise, false memories are not a particularly big issue, but they become a very big issue in our society. And at that point, a lot of bad things happen.

But Karlen knows that there is a renewed interest in child abuse. She applies for a grant and she gets it, and she says, "I want to study to see what happened to these kids I recorded when they were two and three years old, to see what happened to them." Now, these kids are 16 and 17 years old, and many of them are in child protective services, in juvenile justice programs and in mental health programs, she tracks them down, and now she's able to compare what she saw in these earlier videotapes with what happens to them. What she sees is that these parents were not there for their kids, and these kids disassociated. They became absent to themselves, they don't feel taken care of, they feel overwhelmed, abandoned, and they started organizing themselves around taking care of their parents.

WIDE RANGE OF BEHAVIORS CONTRIBUTE TO INTENSITIVE PARENTING: MATERNAL DISRUPTED AFFECTIVE COMMUNICATION (AMBIANCE CODING SYSTEM)

Overall rating scale(1-7) assessing five dimensions of interaction:

1. Negative- Intrusive Behavior

e. g mocks or teases infant.

2.Role Confusion

e. g draws attention to self when infant is in need.

3. Contradictory Affective Communication

e.g talks in inviting voice but physically blocks infant's access.

4. Disorientation

e.g Shows confused, frightened, or odd affect with infant

5. Withdrawal

e.g interacts from a distance; interacts silently; walks around infant

LYONS- RUTH, BROFMAN, AND PARSONS,1999

Caregiving/ Role- Confused Behavior

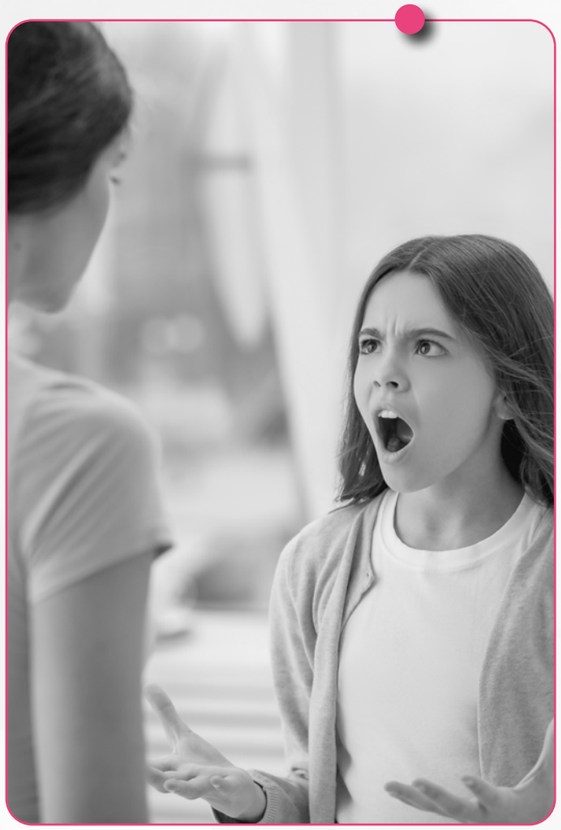
1. Child carries burden of creating interaction.
2. Child structures the interaction.
3. Child diffuses parent's hostility.
4. Child follows into parent's focus of attention (rather than vice versa)
5. Child may entertain with overbright affect.
6. Child may encourage and praise parent.

[Parent abdicates parental role.]

So, if your parents don't take care of you, you change things around to take care of your parents. What you see in these parents who are traumatized themselves is that they mock and tease their children, they ask their kids to take care of them instead of the other way around, they laugh when the kids are crying, they cry when their kids are laughing, the parents are confused and disorganized, and that has a big impact on their children. The children now are in charge while they are still babies, still infants, they are in charge of organizing the interaction and have to take care of their parents. These kids then get preoccupied with fear of abandonment, hyper vigilance in the needs of other people, not knowing what's going on. They feel a lot of guilt and helplessness about what's happening, and they take these burdens upon themselves.

That's not true. With the majority of the people we deal with, it's not trauma, it's disrupted attachments. They don't feel they're fully alive. They don't feel seen and known, and that has devastating consequences. This is not an issue of bad memories, it's an issue of not being part of a relationship that's safe.

I'm really glad to be discussing this because we need to stop talking about who put what into what orifice, and start talking about who was there for you, what makes you feel safe, what makes you feel worthy, what makes you feel worthwhile, what gives you a voice, how you get seen. Because we have been focusing on trauma, we fail to see how to heal those things. So, to some degree, because everything is about trauma, to some degree, we are barking up the wrong tree. The real issue is, who am I in relationship to you, and how can I feel safe with you. This is the more important issue.

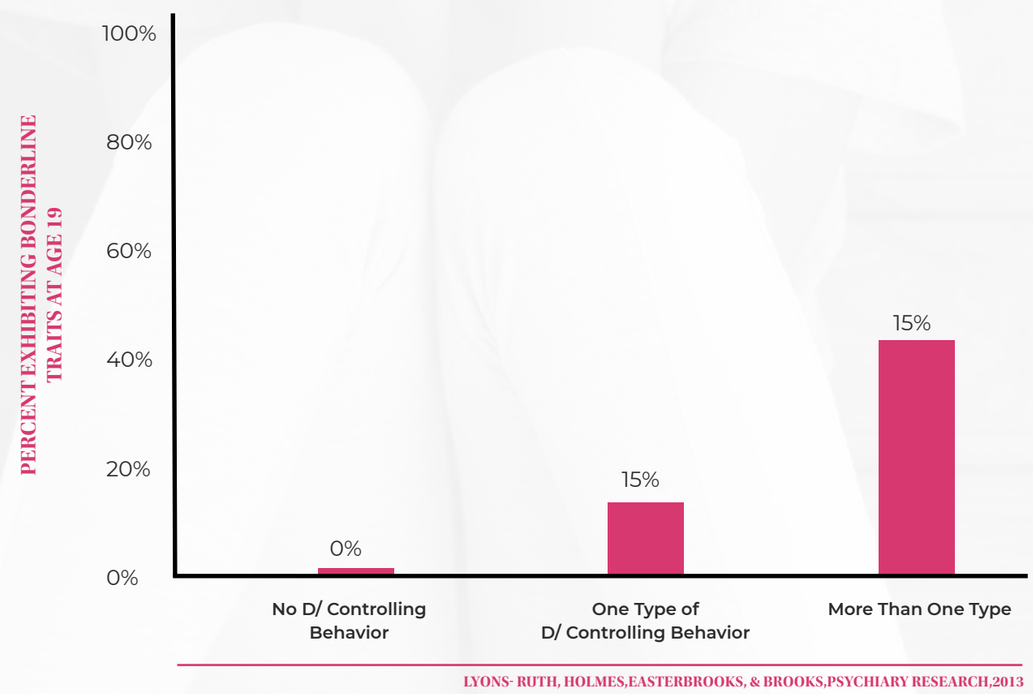


What Karlen finds out is that these kids get very affected by it, then she starts collecting data about how these kids are doing now. What she sees in the early video tapes predicts what they see at age 16, 17, 18. You get these borderline personality problems of being hypersensitive to rejection, being unable to control your emotions, blowing things out of proportion, cutting yourself, doing things to yourself to try to calm yourself down, is not a function of trauma, it's a function of a disrupted attachment system. That's true for suicidality. And the big predictor of that is that your parents weren't there for you to calm you down and make you feel safe.

It's a tremendous challenge because it's very hard. We don't know very much about how to treat it. And when you ask people involved in psychedelics, one of the very striking things, is that psychedelics turned out, much to my amazement, to be extraordinarily helpful for them. That's not something we expected. We haven't published this data yet. I'm actually writing them up right now. But this is a very serious problem.

So, what she sees is, as she follows up with these kids, is that this early absence of a parent can be a predictor for borderline personality, recurring suicidality, substance abuse, conduct disorders, eating disorder, and the social personality disorder and dissociation. Much of what we see in our practice is a function of a disrupted attachment system.

DISORGANIZED/ CONTROLLING BEHAVIOR AT AGE 8 PREDICTS ELEVATED BPD TRAITS AT AGE19



LYONS- RUTH, HOLMES,EASTERBROOKS, & BROOKS,PSYCHIARY RESEARCH,2013

MATERNAL WITHDRAWAL RELATED TO BOTH BONDERLINE FEATURES AND SUICIDALITY

N = 56	X^2	d.f.	R	Variance account for
Affective errors	1.41	1.38	.22	
Role confusion	2.54	1,38	.29	
Disorientation	.10	1.38	.08	
Negative/ intrusive	.00	1.38	.06	18%
Withdrawal	5.90	1.38	.42	

Suicidality results similar. (Gender and demographic risk controlled.)

LYONS- RUTH ET AL. PSYCHIAT. RE, 2013

Finally, she comes out with this, and this graph just came when my book was already in press. I had to stop the printing of my book and say, "This has to go into my book, because this is such important information," because this is critical. So now she has a sample of all these kids, and she's able to look at what happened early on their life and what's happening currently.

What she's able to do through very careful statistical analysis is predict all this stuff, such as abandonment and affect regulation.

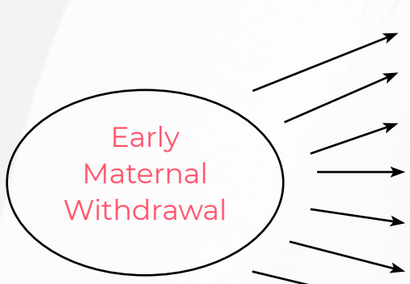
Is early maternal withdrawal the cause of it, not the trauma? What she finds also is that you're much more likely to have traumatic experiences. So, the trauma comes on top of the early attachment issues, but the attachment issue is the primary issue.

Infant's Disorganized Attachment Behavior
Related to Suicidality at Age 20

N = 56	r
Infant disorganized approach behavior	.40
Infant disorganized avoidant behavior	.01
Infant avoidance toward mother	-.25
Infant resistance to mother	-.11
Total crying	.09

LYONS- RUTH ET AL. PSYCHIAT. RE, 2013

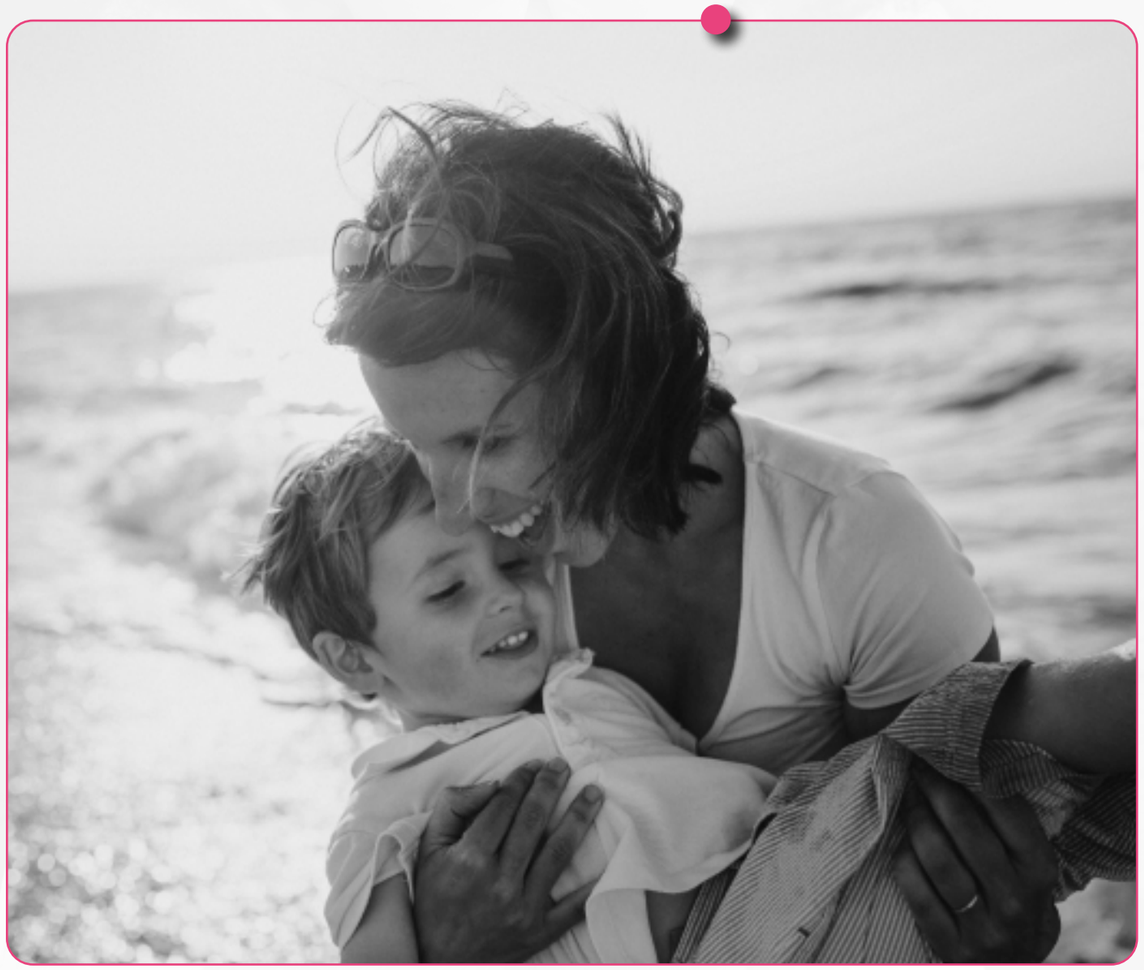
Maternal Withdrawal and Adolescent Outcomes
on the SCID in Late Adolescence



N = 56	r
Extent of Borderline Features	.48
Recurrent Suicidality	.30
Substance Abuse	.49
Conduct Symptoms	.40
Eating Disorders	.34
Antisocial Personality Disorder	.30
Dissociation	.39

Pechtel et al., Int. J. Cog. Ther., 2012
Shi et al., Inf. Mental Health. J., 2011
Lyons- Ruth et al. Psychiat. Res., 2013
Dutra et al., J. Nerv. Ment. Dis., 2009
Lyons- Ruth et al., Att & HD, 2014

That is why it's so important for us, and for me, to engage in preventive measures in helping parents to raise their children in order that they can be attuned to their children and make them feel safe. If I were a commissioner of mental health, or had a position of some power, I would set a mandate that no mental health clinic could get a license unless at least half of their resources was going into helping young parents to raise their children securely, because that is where it pays off when in the long run. You can have fantastic effects. After all the damage is done, it's very hard to repair it. So, I would actually organize things politically so that people can really focus on early prevention of these interactive systems.



PSYCHOBIOLOGICAL EFFECTS OF SEXUAL ABUSE

About 35 years ago my good friend Frank Putnam starts a study of sexually abused girls in the district of Columbia. He's at the National Institute of Health at that particular point. The preamble of this is that he and I used to go together to meetings of the American Psychiatric Association. And we asked our seniors, we're young guys, and we'd say, "You study borderline personality disorder. Have you ever looked at childhood trauma as a cause of that" or, "You study bipolar disorder. Have you ever looked at childhood trauma? Did you look at ADHD?"

And the response of our seniors was always, "You guys are just obsessed with this trauma issue. How crazy can you be? It's a genetic issue. If you're sexually abused, if you're genetically vulnerable to take it badly, you get psychopathology. But, if you don't have a genetic predisposition to feeling bad about being sexually abused, you have no consequences." We'd go out of these meetings and say, "These guys, they're crazy. They must not have children. They don't know that the way that you treat children is not a question of genetics?" We'd leave these meetings very angry, and we'd do things in our own way. And Frank, being a very precise and rational person, would say, "I'm going to do a study of sexually abused girls and compare them with non-sexually abused girls."

PSYCHOBIOLOGICAL EFFECTS OF SEXUAL ABUSE:20 YEARS LATER

Frank W. Putnam, MD
Professor of Pediatrics and Psychiatry
Cincinnati Children's Hospital
Medical Center

SUMMARY OF LONGITUDINAL STUDY

- Serious disorders and high comorbidity (affective, anxiety, suicide, risk talking, self- mutilation, somatization, dissociation, conduct problems, attention, impulse problems, hyperactivity)
- Biological Dysregulation (HPA axis, sympathetic nervous system, obesity, pubertal development?)
- Dysfunctional relationships & sexuality (earlier voluntary intercourse, earlier childbearing, more partners, dysfunctional relationships, more DV, more abused children)

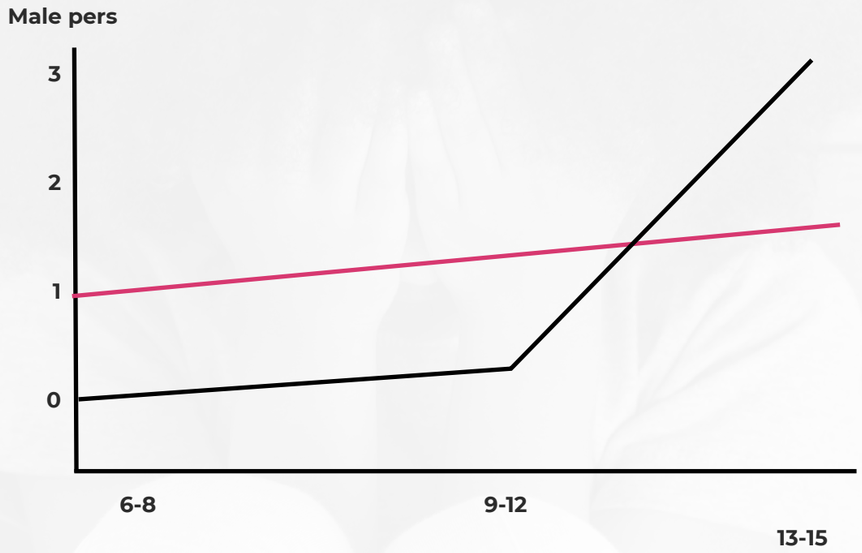
He was at the National Institute of Health, so he could measure every biological variable, every psychological variable. He collected a group of 100 sexually abused girls from the district of Columbia, and he matched them with a 100 girls from the same racial group, socio-economic conditions, et cetera. He did a very careful studies of these kids and their mothers over three years, six years, eight years, and 15 years. They are now at a 32 year follow-up, which if you come to the trauma conference this coming year, that will be presented. And if you're a researcher, you'd be interested to know that the retention rate is 98%.

So, 30 years after starting this study, 98% of the people are still in the study, which is unheard of, and that tells you that they are doing a really fantastic job. What Frank and his colleagues show is a pervasive impact on every possible thing; more depression, more suicide, more anxiety, more self-mutilation, more bodily problems, more conduct disorders, more problems with attention. Everything gets messed up when a child is sexually abused. I'd like to show just one slide, one snapshot of this gigantic study.

PUNAM TRICKETT & NOLL LONGITUDINAL STUDY OF SEXUALL ABUSED CHILDREN

Biology: alteration in HPA feedback loop:

Testosterone	**28(A)**	**5 (C)**
Androstenedione	**120(A)**	**48 (C)**



Increased # pregnancies, drug abuse, sexually provocative

He looks at peer relationships with members of the opposite sex. Here are the non-abused girls. Before the onset of puberty, the non-abused girls, on average, hangout with one boy who serves as a spy in the opposite camp. What you see is that the non-abused girls hang out with one boy, and then they start menstruating, go into puberty, and then they slowly increase their contact with boys.

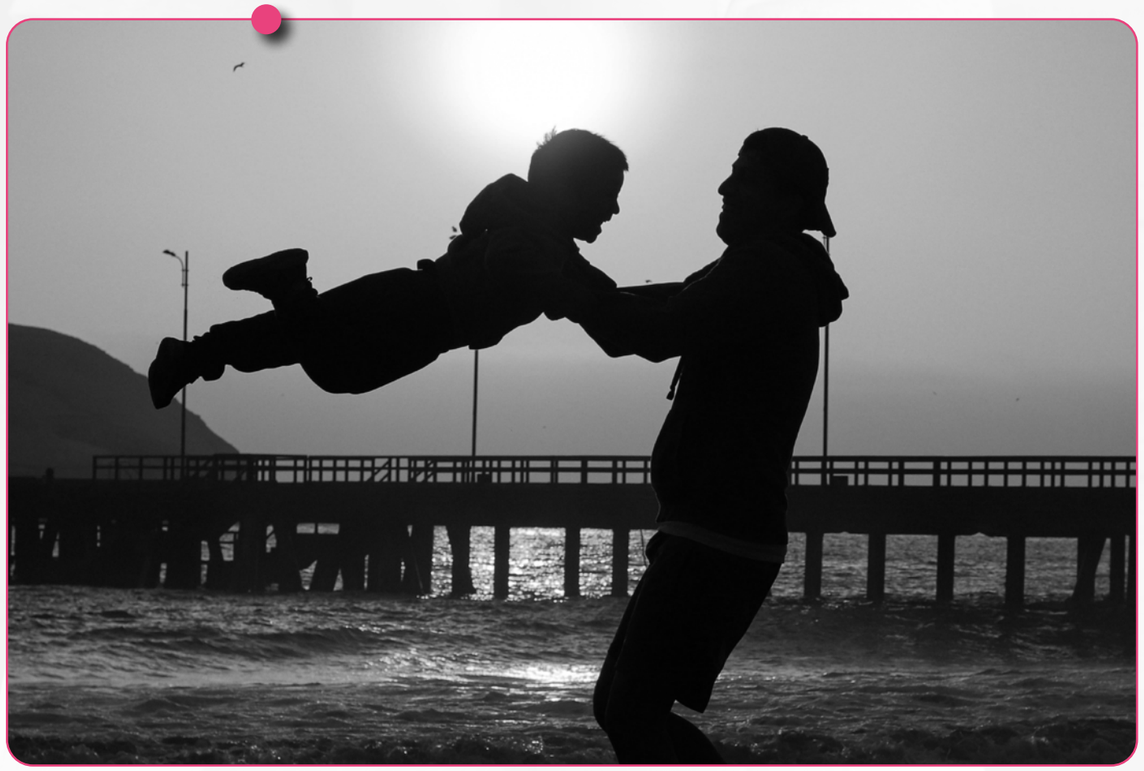
The abused girls don't hang out with any boys at all, and then after puberty, have a lot of contact with them. What's so interesting about it is this is this group, "normal development".

People rarely talk about it but this group of, eight, nine, ten-year-old girls happen to be some of the meanest, nastiest people in the universe. They are jealous of each other, they put each other down, they form little cliques You're on the inside or you're the outside, they betray each other, and they do terrible things to each other.

I've presented this data in Cape town, in new Delhi, in Beijing, in China, and India. In South Africa people said, "Yes, yes. This seems to be a pretty universal phenomena."

If you think about it, it's an amazing thing, here the world is nasty to you, and you are probably a parent like me. Every day I say to my kids at that age, "I'm so lucky that you came to live with me. You had so many parents to choose from, and I'm so grateful that you chose me to be your parent.'' I'm sure most of you say things like that to your kids to let them know how delighted you are that they're your kids. So, you have these parents who adore you but, in the meantime, you do terrible things with your classmates, and that is very good for you. Because what do you learn when people do nasty things to each other?

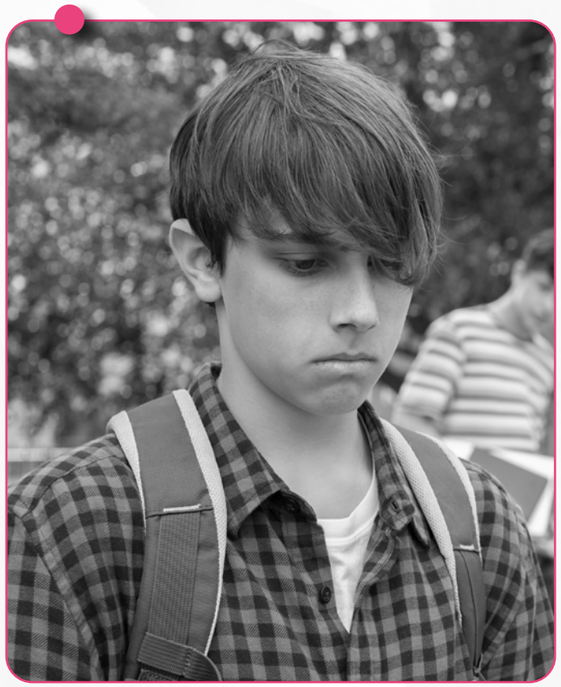
You learn to stand up for yourself, you learn to articulate what upsets you, you learn to say, "You did this to me and that really upset me," you learn to form friendships where you protect each other, where you have loyalty. You learn all the things that you need to do in order to deal with real life. Before puberty you need to learn to say, "No, I don't like this. I don't like what you do to me," because if you don't learn this, when you start getting involved in sexual issues, it becomes very hard if you don't know how to stand up for yourself and to articulate what you need. It is miraculous how nature did it. We need to learn all these things, to stand up for ourselves and talk for ourselves, to have words for ourselves.



So, that's what happens. That's normal development. Then, these girls enter puberty, and they now have friendship patterns where they can talk about what it's like to date people and compare notes and really be part of a larger social system. The abused girls have a completely different development. Not only they do not hang out with boys, they don't hang out with girls either, because they are too dis-regulated, they get too angry, they get too upset, they cry too much, they are difficult to be with, and other kids don't want to hang out with them. At one point, Rick Kluft, who's the editor of Dissociation, writes an editorial in his journal that says, "I remember these girls from primary school." I read it, I think, "Yes, I remember at primary school there was a girl in my class who nobody wanted to play with because she was so weird."

Now, I don't know what it feels like to be a 14-year-old girl, but I certainly remember that as a 14-year-old boy, I learned six languages, with 2% of my brain, because 98% of my brain was thinking about sex when I was a 14 years old. Thank God I did not have five times as many sex hormones coursing through my body, because I couldn't have learned anything. So, here you get filled with these sexual urges, you don't know how to negotiate anything, and then you enter adolescence, and all hell breaks loose. As an adolescent, you are just completely disorganized, and all kinds of terrible things happen here also. Then, some clever person, will say, "Oh, I know what's wrong with her. She was sexually abused." I say, "Yes. That was one of the issues."

Now, in retrospect, I think, "She was probably being abused at home, and then she would come to school, and we're all playing with each other and messing around, but she lost out on that, because both at home and at school she did not make social contact." So, you miss out on all these critical friendship patterns. The next thing that happens is a devastating thing, because Frank studies everything, he studies hormones. Stress hormones, immunological systems. It turns out that the sexually abused girls mature, on average, a year and a half earlier than non-sexually abused girls. Not only that, but they secrete between three and five times as many sex hormones as the non-sexually abused girls.



But it's lot more complicated than that. It's not about how we cure sexual abuse, because the picture is extremely complicated. If you have a good attachment system, you have a parent who watches over you and makes sure that nobody hurts you. Almost everybody we have seen in our practice, who was sexually abused says, "my mom knew what was going on, and she kept quiet," or, "My sister knew what was going on, and nobody did anything." So, it starts in the attachment system, of somebody not being completely dedicated to ensure you are going to be okay. Then, you get the sexual abuse. And sexual abuse is much more complicated than that, people like to say. "Oh, you have this horrible perpetrator. This poor little kid."

No, it isn't like that. Somebody does something to you, to your genitals, that is very confusing, because you don't know if this is pleasurable or horrible or dangerous or if it means that you are special, or does it mean that you're disgusting? You don't know. So, there's a paper written by Sándor Ferenczi in 1929 that got him kicked out of the Psychological Society and banished from Freud's inner circle. The paper is called The Confusion of Tongues Between the Adult and The Child: The Language of Tenderness And the Language of Passion. But what does Sándor Ferenczi say in that paper, he says, "Little kids are love machines."

Little kids do things to have their parents love them, they say, "I love you, daddy." And you think, "I'm just an ordinary kid. Oh, my kid loves me. Oh my God. That makes me so special." You see your kids make something for your birthday and you think, "Isn't that amazing? My kids loves me." Then, the kid wants to go to medical school and says, "Daddy, I want to go to medical school. It costs $58,000 a year." You say, "Absolutely. I'll pay for it, because you make me feel so good about myself. I'll do anything for you." So, the job of little kids is to make you love them. That's their job.

Then, Ferenczi says, the most pleasurable thing for adults is sex. When these two worlds meet, it's causes a very combustible situation. Because kids want to be loved, when people start doing these sexual things to them, they don't know what it means. Does it mean that I'm special, that he loves me, that he hates me, that I'm disgusting? And there's the confusion about sexuality. There's also a confusion that I see in my patients all the time, "I caused this. I wanted to be hugged. I wanted to be loved. I caused the sexual abuse that happened because I wanted people to love me, and that's why I'm to blame for my sexual abuse." So, it's a very confusing issue. It's not as simply as bad and good, or black and white. So, you live with all this confusion, all these feelings in your body.

Then, the big healing factor, which Selma Fraiberg talks about, is the magic years, how at primary school, before sexuality, they are your magic years. Certainly in my life, my primary school years were my magical years. You hang out with friends, you play, you explore the world. It's a wonderful world. That's the time that you really get to know who you are. You learn about friendships, you learn about love, you learn about playing. It's a very important part of your world. If you're sexually abused or abused, that passes you by. Then, you have this horrible adolescence. So, it's really one thing on top of the other. Anybody who tries to sell you simple treatment models, they're probably wrong. So, assume that anything that's simple, is wrong, because these are very complex issues.

DOES PLACING A CHILD IN CARE EARLY IN LIFE CAUSE DISRUPTED ATTACHMENT

There are some people who believe that. I think the research does not prove that. If you have good childcare systems like you have in France and in Canada, and some of us in the United States, kids are just fine going into a very predictable environment. The issue is really the predictability and what you can expect, what's going to happen to you.

Kids can form multiple attachments to multiple people starting around the age of three, before this it may be more problematic.

Putting all this together, we started the National Child Traumatic Stress Network. Part of this was to create awareness of the impact of childhood trauma, and part to bring awareness in school systems, in juvenile justice systems, in police stations, et cetera, and to develop treatments. The first treatment that developed was child focused CBT.

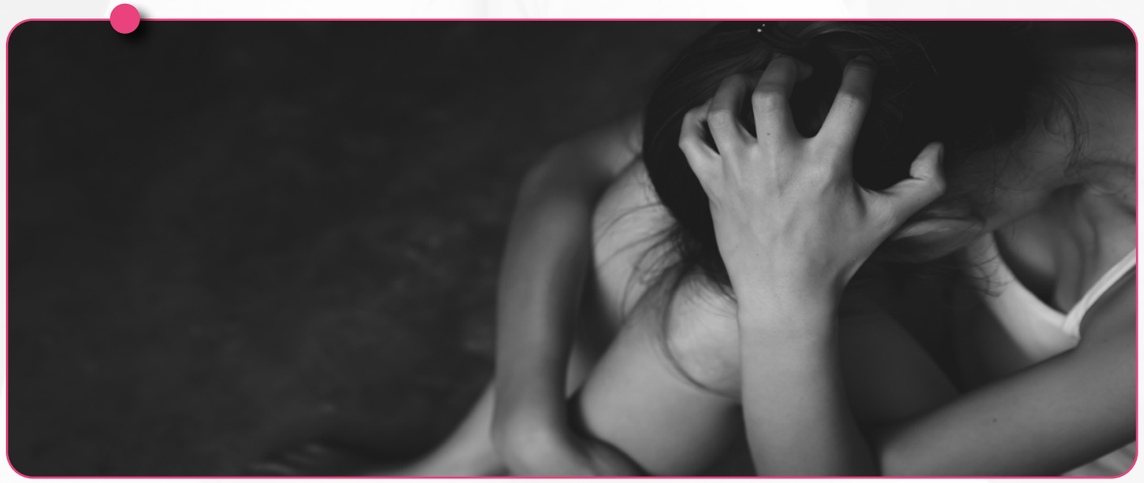
I think child focused CBT is a very nice treatment for single traumas like dog bites or scary experiences, but it doesn't really address the whole issue of intrafamilial trauma. We do a survey within all these sites around the country to see what sort of traumas children in America suffer from. What we find in this multi-site study of 20,000 kids is that the most common trauma is childhood emotional abuse, kids being put down, humiliated, badly treated, et cetera. The second most common theme is loss of a caregiver. Esto debería decir - There are 2.3 million Americans in jail right now, which could also mean that two and a half million children in America have parents who are in jail. Which of course has a huge impact on their wellbeing.

During the wars, parents were also being sent off to Iraq and Afghanistan to liberate those people and make them safe for the American way of life. I think, "Is this really the best thing to do? Is this really a reasonable thing to send mothers and fathers away from their families, to do things in other countries and keep them from being able to raise their own children, which should be the primary job that they have." Having an impaired caregiver, having a parent who is strung out, alcoholic, drug addicted, depressed, too out of it to take care of their children, exposing them to domestic violence, childhood sexual abuse, neglect, physical abuse. Then Congress forced us to study the impact of Muslim fundamentalists on the health of American children, and actually Muslim fundamentalists are not to blame for child abuse in America, for childhood trauma.

The problem, of course, it's not out there, the problem is inside. What we see here is that almost all the traumas that children have occur within the family. So people like to say, "It's out there. Let's change that." No, it is inside, people need to feel safe inside. Again, we look at these 20,000 kids and we see what they suffer from. The most common thing that they suffer from is effective regulators, they become too anxious, too angry, too out of control.

That is a very pervasive issue. The second most common thing is problems with attention and concentration, where they don't feel safe, where they don't feel that they're okay at home. It's very hard to pay attention when your brain is always focusing on, "Who's going to hurt me? What's going to happen?" And you're unable to pay attention to learning. It's a very big issue, I'm very committed to starting neurofeedback programs in as many schools as I can so that all these kids who come to the classroom, upset by what they have seen at home, can actually be helped on Monday morning and Tuesday morning to calm their brains down enough so they can actually pay attention in their classrooms, form friendships, which is what kids need to do. Instead of being all over the place and being frightened about what's going to happen.

As I said before, when terrible things happen to you, where you're a young child, you always feel like, "This is happening to me because I'm a terrible person." Telling people that they are not a terrible person doesn't help. This is not a cognitive issue. I write about it extensively in my book. Telling people they're wonderful, does not make them feel wonderful. In fact, I have a story in my book of a patient who taught me that very clearly. I always said to the patient, "You're really a wonderful person. It wasn't your fault." And she says, "You know, when you say these things to me, it makes me realize that you don't want to hear that I feel like a piece of shit, and you're just trying to gloss it over by saying these nice things to me. What it really confirms to me is that you're not ready to listen and help me with how terrible I feel about myself." So, telling people that they're wonderful people may be nice for your employees, but it doesn't take away from that core sense of, "I'm a damaged human being."

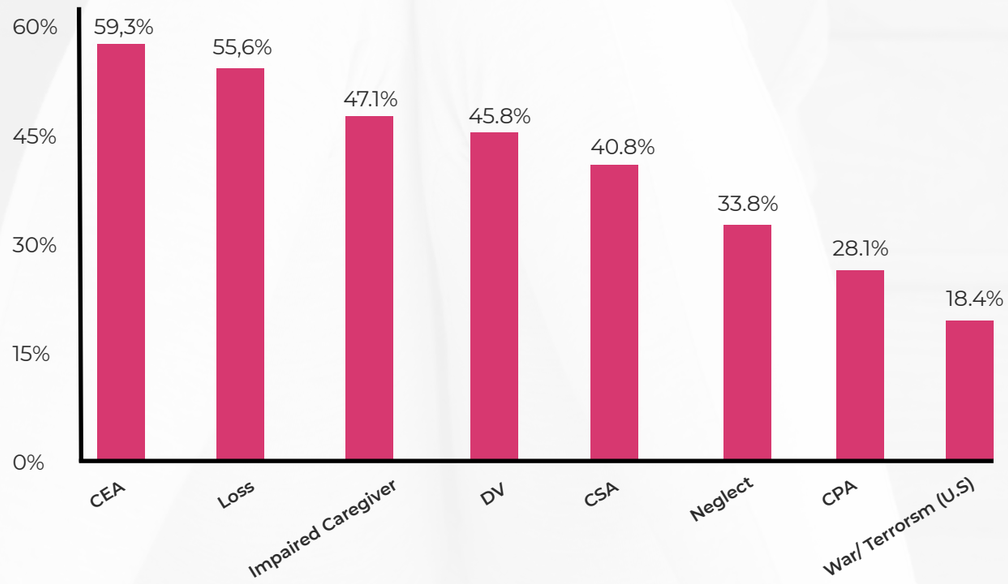


Impulse control; where you feel traumatized, you cannot control your anger, you cannot control your aggression, and risk taking. This is what American kids suffer from. So a group of us, people who have done major work in child development and psychiatry and therapy, we get together and we propose a new diagnosis, the American Psychiatric Association getting away from PTSD, and we say, "We need to have a new diagnosis, developmental trauma disorder," trauma occurs in the context of your caregiving relationships and that sets up another set of problems, other than what PTSD defines.

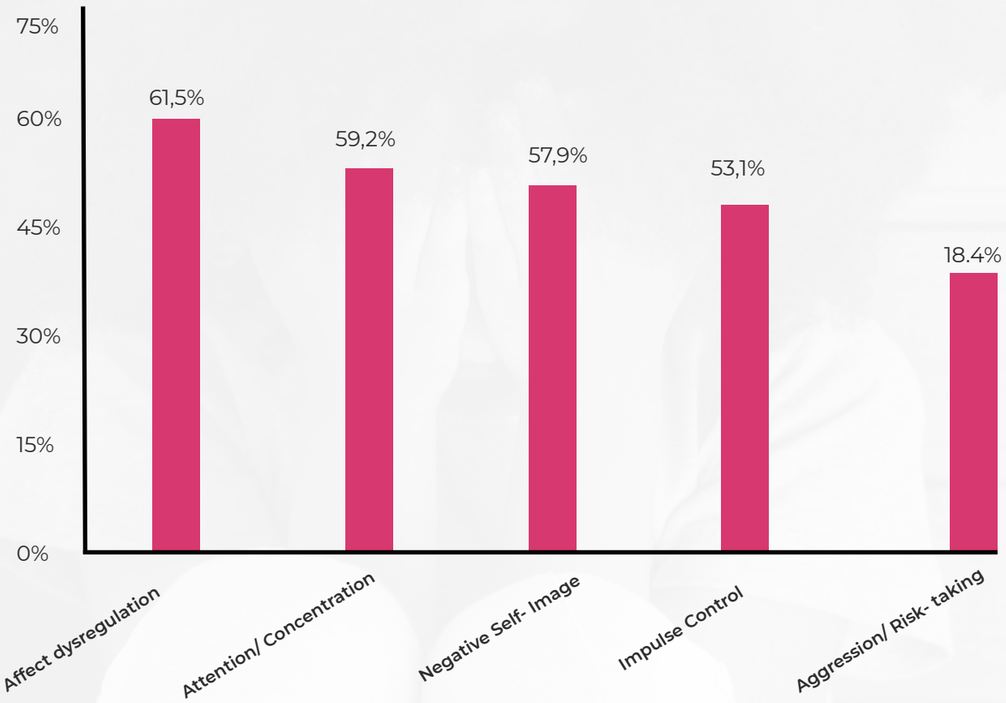
COMPLEX TRAUMA IN THE NATIONAL CHILD TRAUMATIC STRESS NETWORK

Joseph Spinazzola, Ph.D., Julian Ford, Ph. D., Margaret Blaustein, Ph,D., Melissa Brymer, Psy. D., Laura Gardner, BsPH, Susan Silva, Ph,D., Stephanie Smith, Ph. D. Bessel van der Kolk, M. D.,

CHILD TRAUMA HISTORY: MOST FREQUENT EXPOSURE TYPES



COMPLEX POSTTRAUMATIC SEQUELAE: MOST FREQUENT DIFFICULTIES



So this is what developmental trauma is. A month after we submit this proposal to the American Psychiatric Association to be included in the DSM five, I was invited to give a keynote address at an annual meeting for all the commissioners of mental health of all 50 states and US territories. The commissioners hear my talk and they say, "Wow, that's really important." They write a letter to the American Psychiatric Association, and say, "We are an organization that spends $29.5 billion on public mental health every year and we serve 6.1 million, in all 50 states, territories and the district of Columbia, and we urge you to make development trauma a priority in the DSM."

And I think, "Thank God. I don't have to do politics anymore. I can go back to treatment, to research because politics is really too painful. I think this will take care of it." Well, I was wrong. We continue to live with the same old stupid system.

With developmental trauma, bad stuff happens to you in the context of your attachment relationships. This sets up three areas of dysfunction. One is dysregulation, second is attention and concentration and the third thing is how you feel about yourself and other people. An inability to modulate, tolerate, recover from extreme affects, including prolonged and extreme temper tantrums or immobilization.

Do you ever get to see that in your practice? Disturbance in regulation of bodily functions is very much something I see in mine. Sleeping, eating elimination, over-reactivity, under-reactivity to sounds and images, getting very disorganized and lack of awareness of what's going on inside of you, and difficulty describing your internal bodily states.

Two, a preoccupation of threat, always afraid of what will happen to you which can't be compared to a capacity for self-protection. Risk taking, sensation seeking, maladaptive attempts of self-soothing, rocking, habitual movements, hitting yourself, cutting yourself, compulsive masturbation, and an inability to start projects. You ever see that in your practice? Relationship to self, in terms of preoccupation with the safety of your caregivers. Recently, I did a psychedelic experience with one of my patients and she spent the whole time worrying about whether I was okay.

That clearly was what had happened to her when she was a child. She was always worried about her parents because her parents seemed to be so distressed, so there was no room for her. Just a negative sense of self, including self-loathing, extreme sense of worthlessness, ineffectiveness. "I'm defective." Aggression, aggression towards caregivers, peers, everybody else. Inappropriate attempts to get contact with people, not knowing how to get close, not knowing how to be empathic with other people, how your feelings are different from mine, et cetera.

PROPOSAL TO INCLUDE DEVELOPMENTAL TRAUMA DISORDER IN THE DSM V

Bessel A. van der Kolk MD Robert Pynoos MD

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Marylene Cloitr PhD
Wendy D' Andrea PhD
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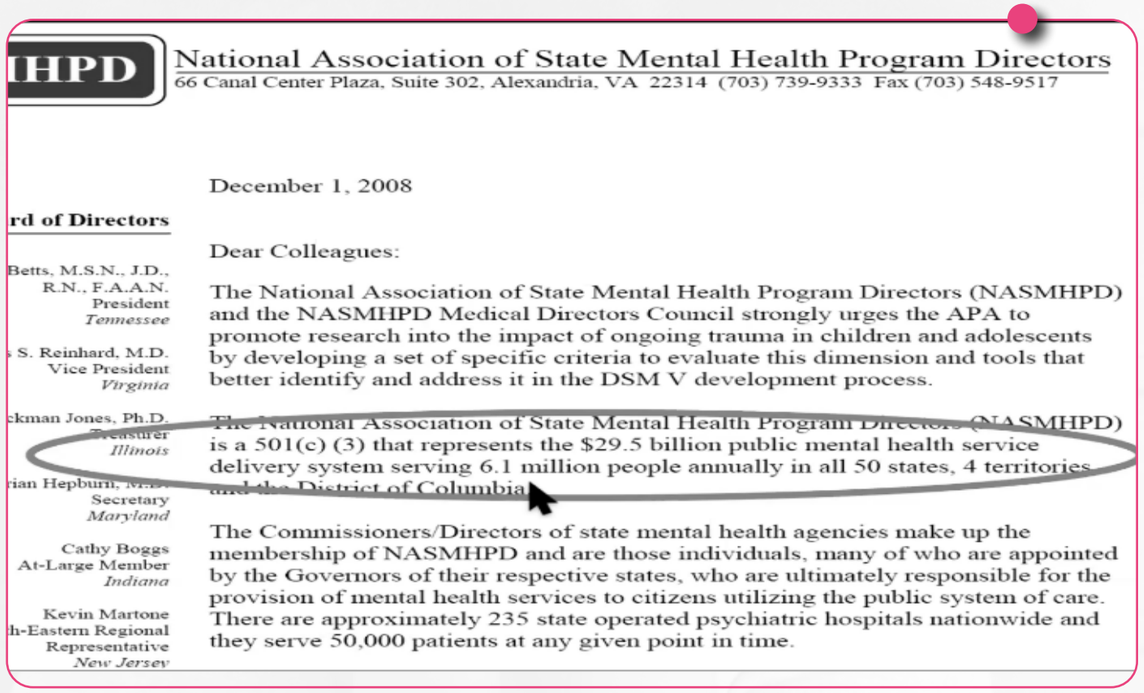

HPD National Association of State Mental Health Program Directors
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December 1, 2008

rd of Directors

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Kevin Martone h-Eastern Regional Representative *New Jersey*

Dear Colleagues:

The National Association of State Mental Health Program Directors (NASMHPD) and the NASMHPD Medical Directors Council strongly urges the APA to promote research into the impact of ongoing trauma in children and adolescents by developing a set of specific criteria to evaluate this dimension and tools that better identify and address it in the DSM V development process.

The National Association of State Mental Health Program Directors (NASMHPD) is a 501(c) (3) that represents the $29.5 billion public mental health service delivery system serving 6.1 million people annually in all 50 states, 4 territories and the District of Columbia.

The Commissioners/Directors of state mental health agencies make up the membership of NASMHPD and are those individuals, many of who are appointed by the Governors of their respective states, who are ultimately responsible for the provision of mental health services to citizens utilizing the public system of care. There are approximately 235 state operated psychiatric hospitals nationwide and they serve 50,000 patients at any given point in time.

Science increasingly supports the enduring impact of early trauma upon self-regulation and clinical studi document that developmental trauma is associated with a wide range of psychopathology, not captured b the current diagnostic construct of PTSD. This fact influences daily diagnostic decision-making and treatment planning in the provision of mental health services to children and adolescents.

We urge the APA to add developmental trauma to its list of priority areas for further research to clarify a better characterize its course and clinical sequelae and to emphasize the strong need to address developmental trauma in the assessment of patients.

Sincerely,

Robert W. Glover, Ph.D
Executive Director
NASMHPD

Joseph Parks, M.D.
Chair,
NASMHPD Medical Directors Council;
Director, Comprehensive Psychiatric Services
Department of Mental Health
State of Missouri

CONSENSUS PROPOSED CRITERIA FOR DEVELOPMENTAL TRAUMA DISORDER

A. Exposure. The child or adolescent has experienced or witnessed multiple or prolonged adverse events over a period of at least one year beginning in childhood or early adolescence, including:

A. 1. Direct experience or witnessing of repeated and severe episodes of interpersonal violence;and

A.2. Significant disruptions of protective caregiving as the result of repeated changes in primary caregiver; repeated separation from the primary caregiver; or exposure to severe and persistent emotional abuse

B. Affective and Physiological Dysregulation. The child exhibits impaired normative developmental competencies related to arousal regulation, including at least two of the following:

B. 1. Inability to modulate, tolerate or recover from extreme effect states (e. g., fear, anger, shame), including prolonged and extreme tantrums, or inmobilization

B.2. Disturbances in regulation in bodily functions (e.g persistent disturbances in sleeping, eating, and elimination; over- reactivity or under-reactivity to touch and sounds; disorganization during routine transitions)

B.3. Diminished awareness/ dissociation of sensations, emotions and bodily states

B. 4. Impaired capacity to Describe emotions or bodily states

C. Attentional and Behavioral Dysregulation: The child exhibits impaired normative developmental competencies related to sustained attention, learning, or coping with stress, including at least three of the following:

C. 1. Preoccupation with threat, or impaired capacity to perceive threat, including misreading of safety and danger cues

C. 2. Impaired capacity for self- protection, including extreme risk- talking or thrill- seeking

C. 3. Maladaptive attempts at self- soothing (e.g., rocking and other rhythmical movements, compulsive masturbation)

C. 4. Habitual (intentional or automatic) or reactive self- harm

C. 5. Inability to initiate or sustain goal- directed behavior

D. Self and Relational Dysregulation. The child exhibits impaired normative developmental competencies in their sense of personal identity and involvement in relationships, including at least three of the following:

D. 1. Intense preoccupation with safety of the caregiver or other loved ones (including precocious caregiving) or difficulty tolerating reunion with them after separation

D. 2. Persistent negative sense of self, including self- loathing, helplessness, worthlessness, ineffectiveness, or defectiveness

D. 3. Extreme and persistent distrrust, defiance or lack of reciprocal behavior in close relationships with adults or peers

D. 4. Reactive physical or verbal aggression toward peers, caregivers or other adults

D. 5, Inappropriate (excessive or promiscuous) attempts to get intimate contact (including but not limited to sexual or physical intimacy) or excessive reliance on peers or adults for safety and reassurance

D. 6. Impaired capacity to regulate empathic arousal as evidenced by lack of empathy for, or intolerance of, expressions of distress of others, or excessive responsiveness to the distress of others

Table 1. Data Sources

Dataset	Contributors	N	Sample Source
NCTSN Survey	Spinazzola, J., Ford, J.D., Zucker,M, van der Kolk, B. A., Silva, S., Smith, S.F., and Blaustein, M.	1699	Clients at NCTSN sites
NCTSN Core Data Set	Pynoos, R. S., Ostrowski.S., Fairbank J. A, Briggs- King, E. C. Steinberg, A., Layne, C., and Stolbach, B	4435	Clients at NCTSN sites
CANS Dataset	McClelland, G., Fehrenbach, T., Griffin, E., Burkman, K., and Kisiel, C.	7668	All Illinois Foster Care system
CANS Dataset	Stolbach, B.C., Dominguez, R.Z., and Rompala, V.	172	All PTSD criterion A-exposed; none have risk to self or others
Western Michigan Dataset	Richardson,M., Henry, J., Black-Pond, C and Sloane, M	209	Foster care
Ford (In press, Journal of Clinical Psychiatry)	Ford, J. D., O' Connor, D. F., and Hawke, J.	397	Child psychiatry inpatients
NSA re- analysis	Ford, J. D., Elhai, J. D., Connor, D. F and Frueh, B. C.	4023	National random
Juvenile Justice	Ford, J. D., Hawke, J., and Chapman, J.	1825	Juvenile Detention Centers
Ghosh Ippen and Lieberman	Ghosh Ippen, C. G. Harris W.W., Van Horn, P. J. and Lieberman, A. F,	89	Preschoolers exposed to domestic violence

Core Data Set Symptom Measure	Mean fo DTD+ Childrem	Mean fo DTD- Childrem	t=	p=	Controlling for PTSD
Self Report					
UCLA PTSD Reaction Index for DSM-IV					
Total Score	28.738	23.914	-6.825	.000	
Cluster B (Re-experiencing)	8.228	6.822	-8.290	.000	
Cluster C (Avoidance)	10.650	8.569	-8.415	.000	
Cluster D (Hyperarousal)	10.045	8.524	-8.605	.000	
Clinician Report					
Clinical Evaluation (scale 0-2)					
ADHD	.4459	.4249	-896	.370	NS
Attachment	.6494	.3049	-17.252	.000	.000
Conduct	.1233	.0986	-2.115	.034	.057
Depression	.7940	.6252	-7.555	.000	.000
Dissociation	.2549	.1391	-8.075	.000	.000
Generalized Anxiety	.5653	.4537	-5.395	.000	.046
General Behavior Problems	.8115	.6965	-4.441	.000	.000
OCD	.0428	.0307	-1.851	.064	NS
OCD	.3440	.3221	-1.134	.257	NS
Panic Disorder	.0570	.0326	-3.515	.000	0.008
Phobic Disorder	.0205	.0249	.809	.418	NS
PTDS	1.023	.5833	-19.354	.000	.NS
Substance Abuse	.2002	.0922	-7.466	.000	.000
Separation Disorder	.1902	.1410	-3.662	.000	.002
Innappropiate Sexualized	.2620	.1301	-8.556	.000	.000
Sleep Disorder	.1995	.1558	-3.045	.002	..147
Somatization	.2362	.1639	-4.767	.000	.021
Suicidality	.2048	.0931	-8.391	.000	.000
Traumatic Grief	.4538	.4156	-1.793	.073	NS

So again, we do a study of 20,000 people to get all this together and to see how this differs from PTSD as defined in the DSM. We study these people, stay up day and night working like crazy, nobody gets paid for any of this. Just a group of very dedicated people from all over the country.

We talk to each other all the time, we do the analysis and we show the importance of it and how clearly this attachment issue is really the core issue. We do analysis send it to the American Psychiatric Association, and then we wait for four months to hear, and then we get the following letter.

THE DSM 5 TASKFORCE RESPONSE TO PROPOSAL TO INCLUDE DTD IN THE DSM5

"The consensus was that there is just too little evidence, at this time, to include DTD in the DSM-5"

"The notion that early childhood adverse experiences lead substantial developmental disruptions is more clinical intuition that a research based fact.
This statement is commonly made but cannot be backed up with prospective studies".

DSM5- A VERITABLE SMORGASBORD OF RANDOM TRAUMA-RELATED "DIAGNOSES"

PTSD
Disruptive mood dysregulation disorder
Reactive Attachment Disorder
Dissociative Identity Disorder
Non- suicidal self-injury
Intermittent Explosive Disorder
Disinhibited Social Engagement Disorder
Oppositional Defiant Disorder
Conduct Disorder
Borderline Personality Disorder

"The consensus is that there was just too little evidence at this time to include developmental trauma disorder in DSM five." Really? Too little evidence. Numerous papers, numerous prospective studies by Frank Putnam, Carla Ruth, Donte Chichetti, and many other people. Then they say, "The notion that early childhood adverse experiences lead to substantial development to disruptions is more clinical intuition than a researched based fact. The statement is commonly made, but cannot be backed up by prospective studies." We have 10 prospective studies on the basis of which we made this diagnosis. So clearly people didn't want to change. People didn't want to change their paradigm. We are stuck with a paradigm that is complete nonsense, that you fill in for your insurance companies for you to get paid. I hope you have some feelings about that, that you live in a system where you give people a bullshit diagnosis that has very little to do with what is really going on.

Imagine you have chest pain and your cardiologist gives you a diagnosis that's based on what the insurance companies will reimburse them for, rather than what is wrong with your chest and what the origin of your chest pain is. We all are part of a deeply corrupt profession where we label people with things that are not real. We're not really caring for people, no wonder people don't respect mental health professionals because we live in a crazy corrupt system that's run by insurance companies that are only interested in making money with clinicians who are only interested in getting reimbursed by those insurance companies. That is not an honest system. So this is what you've settled for.

So when you see a patient right now, who suffers from any of these things, you have a choice. You can call it PTSD. You can call it disruptive mood dysregulation order. You can call it reactive attachment disorder. You can call it a dissociative identity disorder. You can call it a non-suicidal self-injury, intermittent explosive disorder, borderline personality disorder, depending on what the insurance companies will pay you for. But none of these have anything to do with how you treat people. So when I say you should become politically active, what I mean is, I don't want you to live in a corrupt system.

I want you to be proud of what you do and I want you proud of the diagnosis that you made and how you identify what the problem is. Once you can properly identify what the problem is, you might actually be able to help people. But if you say you have intermittent explosive disorder, I need to tell you not to be explosive. That really doesn't do anybody any good.

So it's important to be honest. , how do you treat all of this? The first thing is that we as human beings are part of a community.

We are primates who need people around us or with us, but we get out of sync with people and so the first thing we do is to try to reestablish communities. Much to my sadness and regret is that I'm seeing one thing not being practiced because the insurance companies don't properly reimburse people for it, but that should not stop you from doing the right thing, and this is group psychotherapy. It's very important for people who have been traumatized to reestablish reciprocal relationships with other people, where they contribute to the welfare of their community and where their community helps them. So group therapy and group activities are terribly important to get back in sync with other people, number one.

Number two, affect regulation, learn how to calm yourself down. There's many ways of doing it. Both Steve Porges and Peter Levine talk a lot about it. Affect regulation isn't everything, but it's an important part of the whole thing and you can do it by going into the body. The third thing that's important is that trauma is about being paralyzed by doing anything. So, a very important component of getting better from trauma is to do stuff that works, to do stuff that gives you a sense of pleasure, an agent in your body. We, as psychotherapists are not very good in doing things with people because we like to talk, nothing wrong with talking, but the other stuff is also terribly important.

Fourth thing, I'd love to talk much more about it. I think maybe Steve will talk about it. Accessing the emotional brain again to know yourself. So issues of mindfulness, self-observing, knowing who you are, spending time with yourself. This is terribly important but very frightening for traumatized people to go inside, because trauma is not about an event that happened a long time ago, that event is over, trauma is about the residue that those experiences have left inside of you and how they have shaped you. Trauma lives inside of you, your abandonment and your neglect and your bad experiences continue to live inside of your body. In order to overcome that, you need to actually befriend your body and learn to take care of it. Nobody can do that for you.

You cannot take care of my body. You can only take care of your own body and you really need to focus on doing that, dealing with parts, the stuff that Dick Schwartz and other people talk about it. (I'm also a very devoted IFS practitioner myself, it's terribly important). Then finally you need to deal with somatic memories, that's not the top of the scale, and finally rewiring neuro circuits. I'll talk a little bit about some of these things. So, the first thing is affect regulation in groups, and here's an example of something that I would like to see in every treatment setting and in every school in America, which is the four R's, reading, writing, arithmetic and self-regulation.

A core developmental task is learning to take care of yourself and take care of the housekeeper of your body. This should start in kindergarten and go all the way up to the end of high school, where you learn experientially how to calm your body down.

We live in what I call a post alcoholic culture, where the culture is that if you feel bad, you should go to see a psychiatrist who will give you a drug that makes that feeling go away. That's a very curious position to take because we have inborn mechanisms to calm ourselves down, the way we hold each other, the way we touch each other, the way we breathe and the way we move with other people, regulates our emotions. So all of us need to learn how to do that and pass it on to the people that we work with.

Here's just a small example of how that might happen:

- Please put your hand mindfully on your anchor spot.

- Your heart or belly. Breathing in, breathing out.

- One minute of mindful breathing all by yourself with your hand on your anchor spot, your heart or your belly. Which one do you use, your heart or your belly? Your heart, okay. So you're going to really feel your breath here and you notice when you're saying your anchor words in your mind, can you say them with me? Okay, close your eyes. Breathing in, breathing out. In yoga and mindfulness, our job is to be curious about what's happening inside of ourselves. I want you to write, "I wonder," and write about one of your feelings on the inside. Okay, we're going to practice saying, "I am so focused," in a calm and sweet voice.

- Repeat : I am so focused. I am so focused. I am so focused.

- Now whisper: I am so focused. I am so focused. I am so focused.

- The next thing we're going to do is layers of sound. Open your ears really big and see if you can notice any sounds you hear outside. Our job is to be curious today about what we notice. Now, bring your attention to sounds inside. but outside of the room. Just listen, and see if you can really listen to any sounds that you might be hearing inside of you. Put one hand on your heart and one hand on your belly. Come up to sitting. I'm so curious about what you are noticing. We're working on being curious about things we hear outside of ourselves and inside. Make a singing bowl in front of your heart, an imaginary singing bowl. Grow your heart really big, put all of your kind wishes in your singing bowl and send the love and your wishes out to the world.

This certainly should be part of everybody's practice. Helping people to be inside, to be aware of themselves, to feel themselves as alert, calm outside of themselves. I would say this is foundational, so that's number one. Then I'm going to show you a tape of things that we learned. What you will see here is how we met a particular challenge. Our clinic is in Brooklyn, Massachusetts which is a wonderful community.

It is the highest education community in America, more education than anywhere else. It also is a community that has a fairly large number of gay people. Then again, politics is important, something happened in Massachusetts about 15 or 20 years ago, it was the first state to legalize gay marriage. That had some consequences that I certainly had not anticipated. I'm not gay, and so I hadn't thought about it.

So, a lot of gay people get married and then it turns out that gay people who get married want to have a family. That's interesting. A lot of these people adopted kids, they thought that if we adopt kids, we are wonderful people. We're thoughtful. We are loving. Sooner or later these kids will soon become as loving and wonderful as we are. We'll give them a great experience. Nobody told them about a very important thing, and I imagine many therapists have also not heard about it, about critical periods of brain development. What we know, and actually people have won the Nobel prize for these findings, is that the brain of animals and human beings needs the right input at the right time in order for different parts of the brain to develop.

It turns out that human beings. monkeys and other animals need an input of connection early on in life. Otherwise, the feeling of being connected with people doesn't come online. So, these poor parents who adopted these kids found out that the kids did not take in the milk of human kindness and they didn't respond to their love. This to my mind is one of the great questions of our profession, if I'd ever been head of the National Institute of Health, which I haven't been and never will be, I would have made it the single most important issue for us to learn about how we can compensate for brain defects that you develop because you didn't get the right input at the right time. We don't know where to start, how to answer many of these questions. So, these parents come to our clinic and they have a child, aged three, who was adopted from China at the age of one and a half and she was mute after a year and a half of living with this very loving couple.

They say, "Can you help us?" And we say, "Of course we can, we're the trauma center. We are very smart people. We know how to do stuff." We get to work and three months later, this kid is as mute as she has ever been. We always look at treatment failures, treatment successes are great also, but the most important thing is what can we learn when it doesn't work? We don't blame our patients when things don't go well. We don't call them treatment resistant, we say we don't know enough, we need to learn how to deal with this particular challenge. So the burden is on us and not on our poor patients.

So we sit around as a group and one of our people says, "You know, there's a group of occupational therapists who do sensory integration." They have kids walk on balance beams and lie on heavy blankets and sit on swings, all about the activation of the balancing system in the brain, the cerebral vestibular system, and we say "Let's give it a try." Always give it a try, and so we send this child to the sensory integration program and after a little while she starts talking. As a neuroscientist, I think, "Wow, that's interesting. You tweak a system in the brain here and it has to do with balance. Then it shows up in another system of the brain that has to do with language." So there's a new circuit in the brain that gets opened up by doing something over here.

THE IMPORTANCE OF PLEASURE

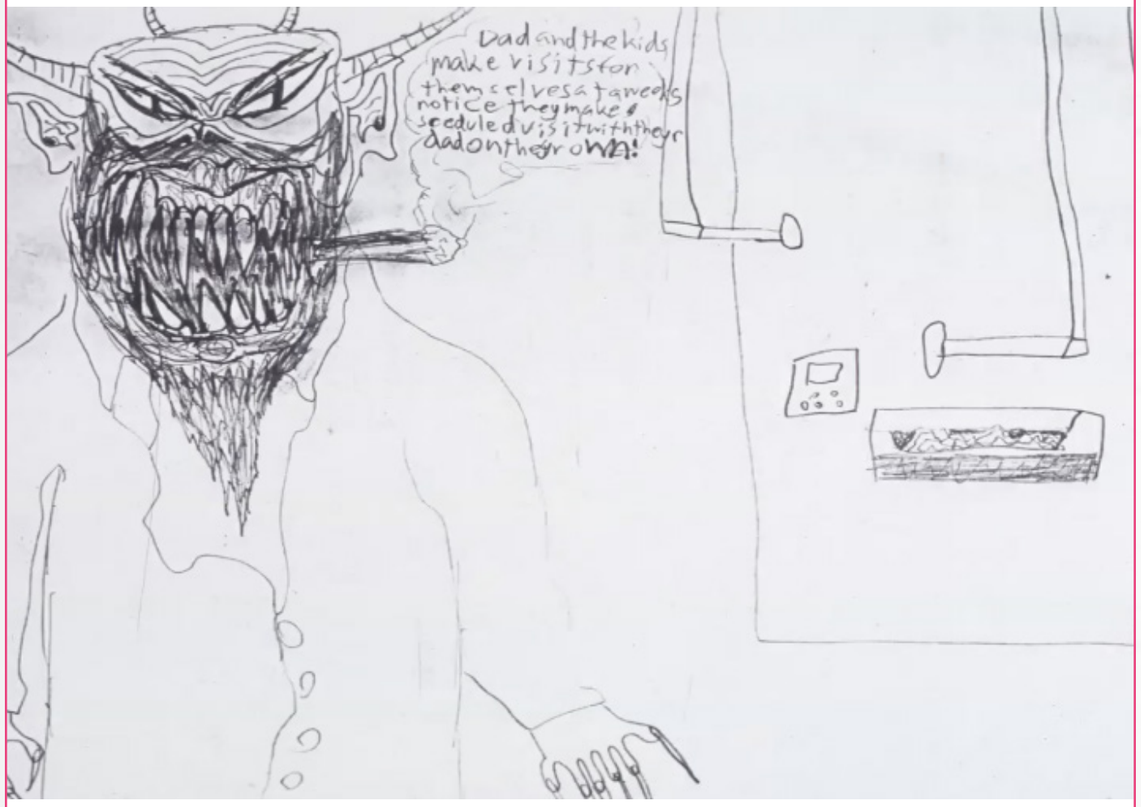
When my book first came out, the first thing I looked up was whether the word pleasure was in the index. They left it out once again. So I call my publisher, I say, "You left the word pleasure out of the book. Life is about pleasure. Life is about having fun and enjoying yourself". What trauma does is it destroys pleasure, but you have to have pleasure. How do you create pleasure? By being in sync with other people.

Here's an example of good therapy for developmental trauma. This kid was sent to us quite a few years ago by the Department of Social Services. The Department says, "We have this kid who was removed from his father's home because his father was abusive, he broke his bones, beat him up, all kinds of things. He went to a foster home and he was very violent, so he was moved to another foster home and he was very violent there too. He moved to another foster home and now he's 13-years-old. He's a big kid and we cannot place him anymore because he's too dangerous. He's not bad enough to be locked up in a juvenile justice system because he has not commited any obvious crimes. But we're thinking about sending him back to his dad".

So what happened was that his well-meaning adoptive parents, think that, "We are wonderful people and if we treat this kid nicely, this kid will sooner or later become just as nice as we are". But what they don't know is that this kid has his own way of making meaning of the world. What he has learned is that in any situation, the person who's the toughest, meanest person gets to have his own way and everyone listens to him. That's his organization. Wherever he goes, he's the meanest toughest person. Now he finally comes to us. People are at the end of their rope and he sees one of my colleagues and my colleague is a very smart therapist, I suspect juvenile issues when she was young, so she gets these kids.

She gets a big chart, sees the things that this kid has done and how scared people are of him, and she looks at it and says, "I get it. You are a really tough kid. You know, I wish the other kids in the waiting room could know about it. The world's a dangerous place. And in order to survive in this world, you need to be a very tough person". Which is true. And the kid says, "Nobody's ever said that to me, people always finger wag and say, if you keep doing terrible things, terrible things will happen to you". This kid can really see that the therapist knows how important it is to be tough and mean. And Maureen says to him, "You're a tough kid, I like that". And the kid says, "Yeah, I'm real tough". She says, "Let's make a drawing of as a really tough kid".

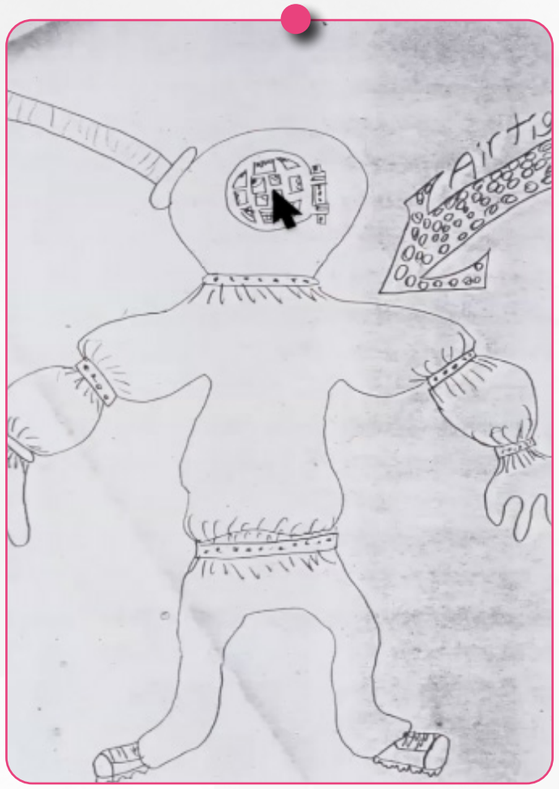
The drawing says, "No guts, no glory", a motto of the U.S. Marine Corps. Maureen says, "Boy, that's a real tough kid. That's good. Are you as tough as Arnold Schwarzenegger?" He said, "Well, you know, he's sort of a little older than I am, but when I'm his age I'll be as tough as he is". "How about Sylvester Stallone?" This was a while ago, he says, "He's a pussy. I can lick him". And so Maureen says, "That's great. It's good. I'm all in favor of that, but you have a problem. The problem is that because you're so tough, people are scared of you. And because of that, we don't know where to put you. People are saying, maybe we should send you back to your dad because nobody else wants you to live with them".



And the kid says, "No way. I'm not going to live with my dad. He's terrible". And Maureen says, "Can you make a picture of your dad?" And that's his dad. Now we're beginning to get a diagnosis. This is the internal thing that's haunting him. He's much tougher than anybody is. Maureen says, "Oh my God, that's a real tough guy.

So what will happen if you have to live with him? Let's make a drawing of that". And he says, "That's what will happen to me if I go back to my dad". Now we have a diagnosis. That is what this kid is dealing with, and that helps you understand everything else.

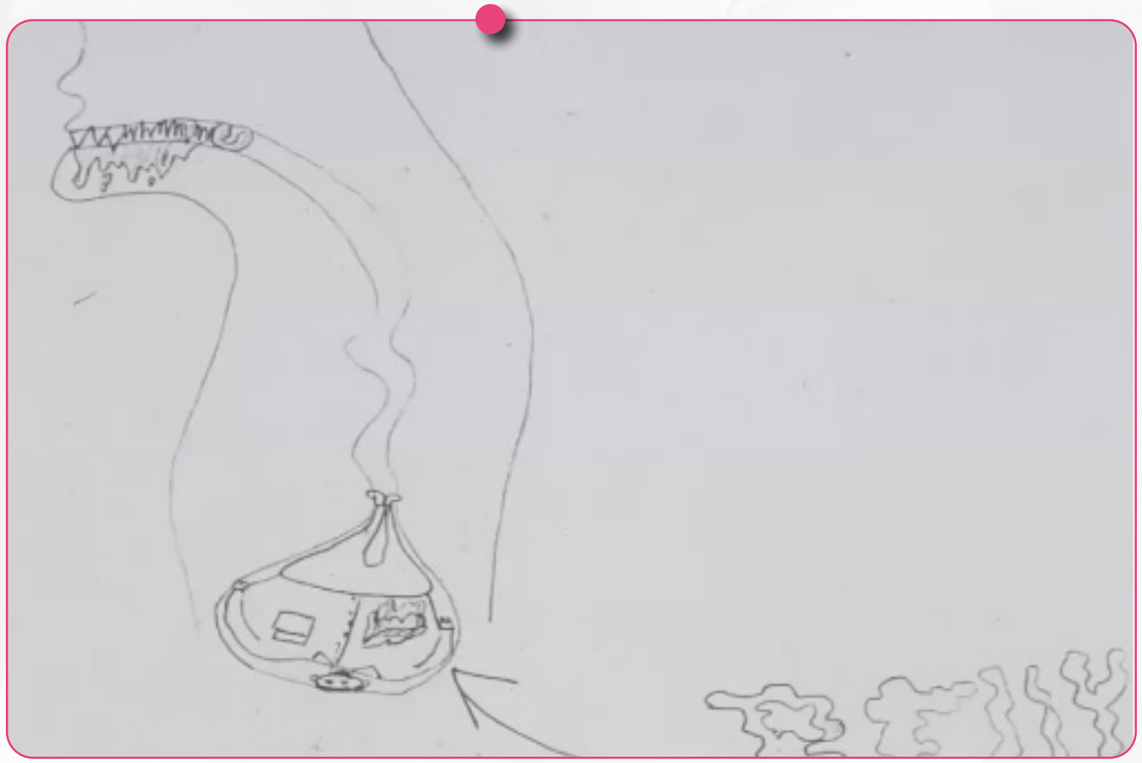
We have made a diagnosis, but we haven't started the treatment yet. Just telling people how bad things are is not the same as treatment. Now the treatment starts, and the treatment has to do with imagination.



Maureen says to him, "What do you think you could do to protect yourself against this guy?" He's a smart kid, he says, "Maybe if I put myself in the diver suit and sink about 300 feet below the ocean, he won't get to me anymore". And Maureen says, "Good idea. But you know, there's still the air hose, and we need to make sure your dad doesn't go down there. How should we deal with that?"

The kid says, "Maybe if I hide myself in the light bulb, he won't see me anymore". She says, "Let's draw a light bulb". Then he says, "Maybe if I go back into my mother's belly, I'll be safe and nobody will need to take care of me."

So there's the opening up of imagination, the opening up of new possibilities. That's what treatment is all about. Not to rehash the same old thing over and over again, but to actively create new possibilities. I'm going to just give a little plug for neurofeedback, because before you jump into psychedelics you should do neurofeedback. Neurofeedback has larger public health implications than psychedelics do, although psychedelics are going to be great, actually. With neurofeedback, you play computer games with your own brain. There's a good chapter about it in my book. Also, what I'd like to tell you about is my current organization, it's called the Trauma Research Foundation. You can look it up by visiting traumaresearchfoundation.org. In particular we promote all kinds of treatments that you don't learn in school, that we have found to be very innovative and important.

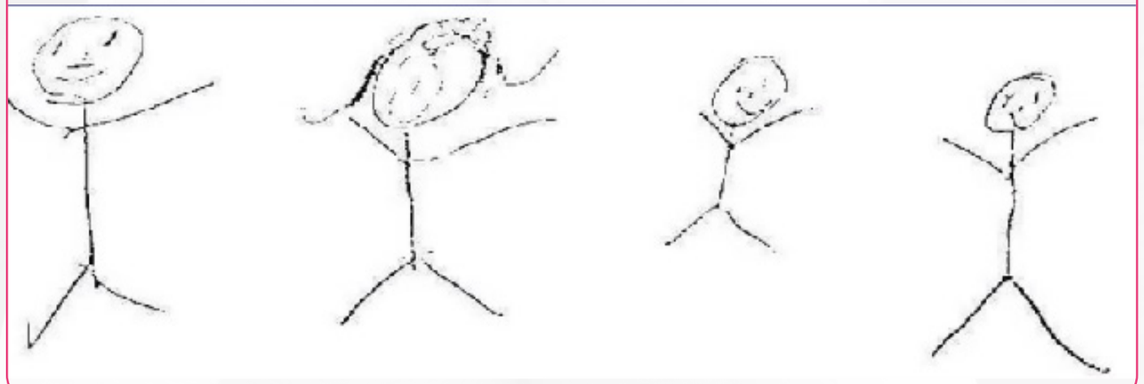


I hope you join the Trauma Research Foundation community and expand your consciousness with many other things. I'd like to explain this to you, the very complex things that happen in the brain of traumatized people and what you do with neurofeedback. You can see these abnormalities in the brain. It's not just the polyvagal system, it just goes up and down the brain. The polyvagal system is a very small part of the abnormalities that can happen, it is pervasive in other parts of your brain as well. What you do with neurofeedback, you can put electrodes on people's brains, they can learn to play computer games with your own brain that help you to regulate your own brain circuits. So, a story. I first got interested in neurofeedback when I met this person, Sebern Fisher.

She says, "I was working with this eight-year-old kid and that's his family drawing". I say, "That's a pretty sucky family drawing for an eight-year-old kid." Then she says, "I did 20 sessions of neurofeedback with him, and that's his family drawing now". I say, "Wow, I don't know any treatment that changes from that to that in just 10 weeks". Then she says, "I did 20 more sessions in neurofeedback and that's his family drawing". And I say, "Holy shit. This is about we need, we need to do something that helps people to view the world differently and to organize their reality differently". At that point, I become a neurofeedback researcher, which you can read all about in my book.

I'm going to end with this transcript of a tape recording to just give you the full severity of this. We have very active neurofeedback training through Trauma Research Foundation right now. I hope some of you look with interest at that.

CHILD'S FAMILY DRAING AT BEGINNING OF NF - 8/3/94



Speaker 1:
He used to hit me and punch me and kick me and bite me.

Speaker 2:
His hyperactivity disorder, or ADHD, was out of control. His oldest sister, Tara was terrified.

Speaker 2:
What are you like now?
Kane:
I'm happier. I'm able to concentrate. Yeah.

Speaker 2:
You get along with people better?

Kane:
Yeah, I get along with my mom well.

Dr. Pearl:
Okay Kane, I want you to get the green rocket ship to fire up.

Speaker 2:
After years of violent outbursts, finally relief in what looks to be a simple computer game.

Dr. Pearl:
It works for mood disturbances. It works for panic. I've used it successfully with chronic pain.

Speaker 2:
Dr. Pearl says the electrodes on Kane's head sense when he's relaxed and focused. And as a result, the green spaceship speeds up, overtaking the other spaceships that show when he's tired or tense.

Speaker 3:
What he wants to do is get the rockets to go fast, so he teaches himself really to slow down. Absolutely excellent results.

It's been long-term and he's lost I would say all of his violence. Yes, I have a little boy now, and it's fabulous. [crosstalk 00:18:26].

Speaker 2:
Looking back, Kane hardly recognizes himself.

Kane:
Can't believe I was like that.

Speaker 2:
Could you ever be like that again?

Kane:
No.

Speaker 2:
You don't think so?

Kane:
Even if I tried, I don't think I'd be able to do it.

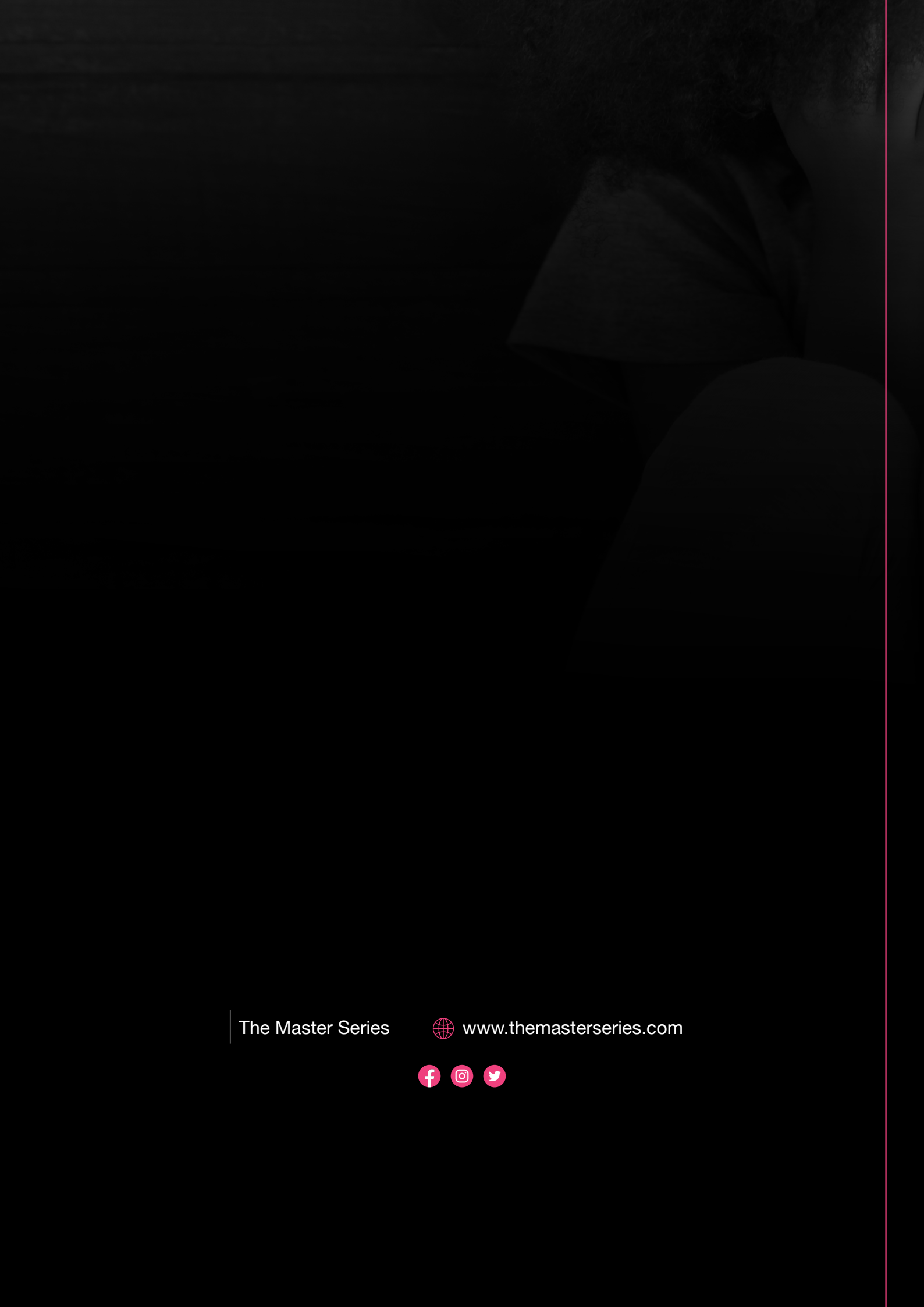
Dr. Pearl:
Click the button anytime you see the white square-

Speaker 2:
Dr. Pearl tests Kane's attention span. After 60 neuro feedback sessions, his scores have doubled.

Dr. Pearl:
Maybe one in 10,000 children would have scored as poorly as he did. But now, he's completely average

If you don’t want to know how to get results like you’ve just read in this transcript - don't learn neurofeedback. But if you don't, ask yourself if it’s okay to keep charging people money for stuff that doesn't work as well? We go to school and we get what I call a license to malpractice. A lot of the things we learn in school turn out to be not to be that helpful. And then you learn from your patients. You actually start learning all kinds of things that actually help. Your patients, or clients as you call them, are your main teachers. So, we do all this research and I'll show you the most important. This is not a trauma treatment. This is a brain regulation treatment that takes care of all the abnormalities that people have in their brain.

When we did the research, what we found is the big difference is in affect dysregulation, identity impairment, abandonment concerns, susceptibility to influence, interpersonal conflict, potential reduction activities. What we see is a marked improvement in the ultimate measure of mental functioning, executive functioning. Being able to plan, make decisions, being able to be flexible and try new things, being able to respond to unfamiliar situation, dealing with danger, and self-regulation. That's really what we can do. I hope that this has inspired you to see this as one of multiple steps to your continued growth and development. I think all of us, including me, need to continuously learn new stuff and to not be satisfied with what you know at this particular point.



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