

Handouts for Training on the Neurobiology of Trauma

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Handout 1: How to Use the Neurobiology of Trauma Responses and Resources

Note: In order to effectively use these answers, please take the person's individual needs and circumstances into consideration PRIOR to using these responses (*in other words, please customize when needed.*)

Step 1:

Make sure you have established rapport and trust with the person. This process typically takes time and always involves validating the person's experience, learning about the person's needs, and building mutual trust.

Step 2:

After rapport is built, and someone asks a question that could be answered, in part, with some information on the neurobiology of trauma (see Handout 2), you may use a response like:

- **Option 1:** *It's understandable that you are feeling this way. Many people who have experienced _____ feel _____ [avoid identity labels like "victim" and "survivor"]. If you would like, I can provide you with some basic information about why our brains and bodies react that way.*
- **Option 2:** *It is very common for people to _____ when they are being assaulted [or their words for what happened]. If you would like, and if you are open to it, I can provide you with some more information about this.*
- **Option 3:** *It sounds like _____ has been difficult for you. It is very common for people who have experienced _____ to feel/think this way. If you are okay with it, I can provide you with some background information about why our bodies and brains react that way.*

Step 3:

- If they **do** consent to discussing the neurobiology of trauma:
 - You may proceed to use the neurobiology of trauma responses (see Handout 2).
- If they **do not** consent to discussing the neurobiology of trauma:
 - Please refrain from using the neurobiology of trauma responses.
 - Instead, provide the person with emotional support and resources (from the dashboard), as applicable.

Step 4:

If the person wants to read/obtain additional information and/or resources related to the neurobiology of trauma, you can respond with:

Are resources to help with _____ something that you may be interested in? If so, I have a few resources that I can provide you (provide Handouts).

Step 5:

If person wants additional information that is *beyond* the scope of this neurobiology of trauma training and the provided responses, you may respond with:

I can understand your wish to learn more about these concepts. I have only been trained on the basic concepts of how trauma affects our bodies and our brains. But there are several resources that may be able to provide you with the answers you are looking for. If this is something you may be interested in, I have a few referrals I can provide you (see Handout 3).

Handout 2: Responses to Frequently Asked Neurobiology of Trauma Questions

Disclaimer: These responses are provided to help you answer a person's frequently asked questions from a neurobiological perspective. To effectively use these responses, please take the person's individual needs and circumstances into consideration PRIOR to using them.

1. Why didn't I fight back?

- “During an assault, the brain's fear circuitry takes over. It can trigger survival reflexes that don't involve fighting or even struggling. Those responses are automatic and normal in such situations.”

Followed by:

- “There are a few common reflexes that the brain falls back on during an assault situation. For example, you may “freeze,” space out, pass out, become paralyzed and unable to move or speak, or become faint or even pass out. Or someone may panic and try to resist, but perpetrators often expect this and easily counter the resistance.”

2. Why can't I just get over it?

- “There could be many reasons for that and all of them are completely normal. It's based on how your brain responds to a sexual assault, especially in situations where there are many other stressful things going on.”

Followed by:

- i. “Traumatic memories are different from normal memories. They are strongly ‘encoded’ or recorded into the brain – even if you only remember pieces of the experience. Many people continue to struggle with the memories, especially if they have not gotten the support that they need and deserve.”

3. Why do I sometimes feel like it's happening all over again?

- “Traumatic memories are different from normal memories. They are strongly recorded in the brain because of the stress chemicals that are released during the trauma. Even if your memory is incomplete, and you remember just pieces of what you felt and went through, it can feel like scenes of a movie playing in your head.”

Followed by:

- “These ‘movie scenes’, which can contain really traumatic memories, can get triggered by things and situations that we don't expect or we can't control. So, sometimes, no matter how much you try to avoid the traumatic memories, they can come up without warning and they can feel just as intense as when the assault was actually happening.”

- Or: “You may feel like it’s happening all over again because your body will react to the triggers the same way it reacted to the assault as it was happening. For many people, working with a trained professional who specializes in trauma can end these feelings.”

4. Why am I so easily startled? (i.e. why am I so jumpy?)

- “Sexual assaults and other traumas affect the part of the brain that controls the ‘startle response.’ This part of the brain is linked to anxiety and the effects can be lasting. But it is also true that the ‘startle response’ can be reversed.”

Followed by

- “Anything you can do to develop a sense of safety in your body and an awareness of your emotions may help to reduce how jumpy you feel. You can try to achieve this by using exercise, yoga, and meditation. Also, many people choose to seek help from a trained professional to help them reduce and eliminate this ‘startle response’.”

5. I’ve tried counseling before but it didn’t help. So what do I do now?

- First, try to obtain more information about their previous experience(s) with counseling. Use questions like:
 - i. “Can you tell me a little more about your past experience with a counselor?”
 - ii. “Would you mind telling me a little more about your past counseling experience so that I can provide you with other resources that may be helpful to you?”
- Then, based on the person’s answers, you may state:
 - i. “There are a variety of treatments that can help people who have experienced sexual assault heal. Also, some therapists are more effective than others. Some clinicians are simply a better match for some clients than others.”
 - ii. “I encourage you to not to give up on finding the help you deserve. There are professionals who can help you.”
- Lastly, ask about their experiences with and attitudes towards exercise, yoga, and meditation. Provide them with suggestions such as:
 - i. “Many people who have been sexually assaulted have found exercise/yoga/meditation very helpful, especially when they are trying to develop a sense of safety and comfort their bodies. These techniques can affect a specific brain region that allows you to be more aware of your bodily experiences. That awareness can be used to support your healing process.”

6. Why did I feel like I couldn't move?

- [You may already have heard one of these responses in their account of what happened. If so, refer to that, in their words, while providing the information below.]
- “There are actually terms that describe what you may have experienced.”
- “One is called ‘tonic immobility’. That basically means that your body went rigid and you couldn't move – that is, were paralyzed with fear.”
- “Another is ‘collapsed immobility’. In this case, one feels faint and the body goes limp (like a possum), and one may even pass out.
- “These reflexive responses can happen when someone is unable to escape, or they believe they are unable to escape, an assault. It's a response that appeared millions of years ago in evolution, and all mammals can have that type of response.”

Followed by:

- “The fact that you couldn't move does not mean that _____ (*insert whatever is most applicable to the person's experience such as: that you did anything wrong; that you wanted to have sex; that you are weak; that you deserved what happened because you didn't fight back*). It's just that your brain went into extreme survival mode. This mode is designed to prevent the perpetrator from becoming even more violent.”

7. Why do I feel numb and disconnected from other people?

- “Feeling connected to other people, including those we love, requires being able to feel emotions. It requires us to feel positive emotions of happiness, love, and caring. Feeling connected also requires us to feel motivated to connect with others. A traumatic experience can change the brain areas that enable you to feel these types of emotions.”

Followed by:

- “In other words, traumatic experiences can affect your ability to connect with others or to have positive and loving feelings. These ‘numbing’ symptoms are common for people who have been sexually assaulted and other traumas.”

8. Why am I drinking or using drugs? (i.e. addiction)

- First, it's important to ask why they think they are drinking and using drugs, as it may or may not be related to their sexual assault trauma.
- Then, you can build on their experience to respond appropriately. Here are some sample responses, worded from a neurobiological perspective:
 - i. “Whenever the brain is having unwanted and unpleasant experiences, it can't help but seek relief and escape from those experiences. There is actually a ‘seeking circuitry’ of the brain. This circuitry seeks things that are healthy and

fulfilling. But it can also seek 'quick fixes' that are unhealthy and potentially addictive.”

- ii. “When people are really hurting, and they don't have or can't make use of support and help from others, their seeking circuitry can get caught up in using substances to get relief.”
- iii. “Alcohol and different drugs have specific effects on the brain. Some of those effects offset symptoms such as depression and anxiety. So it is very common for people who have been sexually assaulted and are traumatized to 'self-medicate' with alcohol and drugs, in attempt to find relief, even if it's only temporary and leads to other problems.”

9. Why am I self-harming?

- “Research has found that self-harming behaviors can function in two basic ways:
 - i. Relieving emotional pain by releasing soothing chemicals in the brain.
 - ii. Producing a feeling of being alive and real when someone has been emotionally numb and disconnected from others and the world.”

Followed by:

- “Self-harming behaviors can also be a way for people to punish themselves or a way to express feelings of self-hate. These feelings are common in people who have experienced a great deal of trauma.”

10. How do I explain what I have been through and how it's affected me, to my family, friends, and loved ones who have not experienced trauma?

- **Please note:** There are no easy answers to this question, given all the variables that may be present, including the beliefs, attitudes, and emotional capacities of the people the person wants to disclose their information to.
- **In terms of brain-based explanations, you can state:**
 - i. “Research has shown that what you experienced during the sexual assault, and how you responded at the time, is all based in normal brain processes that occur during traumatic situations. They can happen to police officers, soldiers – anyone who is attacked or fears for his or her life.”
 - ii. “Research has shown that traumatic experiences can have lasting effects on many brain regions. These regions are connected to emotions, mood, anxiety, and how we relate to others. Yet research also shows that therapy, supportive relationships, and a variety of other things can help people heal from trauma.”

11. Are there any differences between the effects of trauma on a woman's brain versus a man's brain?

- “There is some preliminary research suggesting differences, but nothing well established yet.”

Followed by:

- “Everything we think, feel, and do involves activity in brain regions that allow us to have those experiences and do those things.”
- “However, in most cases, there are no significant differences in brain function. Instead, there are differences in how certain brain functions are used. For example, women are more likely to suffer from depression and men are more likely to suffer from addictions. Also, women tend to be more aware of their emotions – at least the vulnerable ones – than men.”

12. How do I reconnect with who I am as a healthy and happy person – with playfulness, productiveness, and love? (i.e. who they want to be)

- “Losing connection with these positive potentials is a normal effect of trauma on human brains. Trauma can greatly affect the brain's circuit for seeking positive experiences and the ‘satisfaction circuit’ that allows us experience enjoyment and satisfaction in life.”

Followed by:

- “A lot of research has shown that when people don't expect to enjoy things they used to before experiencing trauma, they think to themselves, ‘*When I feel better, then I'll get back into the things I used to enjoy*’. But then they don't feel better and remain stuck. Research has shown that if people go ahead and do enjoyable and fun things, even if they don't enjoy them at first, eventually the brain's circuits of seeking and satisfaction – as well connecting with others – will become more active and get back on track again.”
- “Also, therapy and other activities may be necessary.”

13. Why am I eating and/or sleeping too much or too little?

- “Sexual assault and other traumas affect brain circuitries directly involved in the regulation of sleep and eating behaviors. Trauma also affects circuitries involved in depression and anxiety and both of these affect sleep and eating.”

Followed by:

- “When depressed, it is common to have little appetite and to sleep too much or too little. Severe anxiety can make it very difficult to sleep, and sometimes the brain turns to food and eating, which can be very soothing and calming, as a brief escape from the anxiety.”
- “The brain also has a remarkable ability to change and heal itself, especially with the right support and help from others. There are a variety of effective methods for bringing

one's sleeping and eating back into normal and healthy ranges, and a qualified professional can help you learn and maintain healthy sleeping and eating habits.”

- “Many traumatized people find that successful efforts to get their sleeping and eating back on a healthy track have huge positive effects on their symptoms of depression, anxiety, and other symptoms.”

14. Why has this assault affected me so much?

- “Sexual assault, like any kind of major traumatic experience, can have huge effects on a variety of brain systems, especially those involved in fear, anxiety, depression, and addiction, as well as those required for healthy and normal functioning of memory, emotions, and various thought processes.”

Followed by:

- “If a person has experienced a number of traumatic experiences and ongoing trauma and stress (*like multiple assaults, job loss, etc.*), their work and personal lives can be greatly affected.”
- “Why the assault has affected you so much as an individual, unique human being, is a bigger question than I could ever answer in a conversation like this. But there are trained and experienced professionals who can help you answer that question for yourself. They can help you heal and recover from the assault and from other traumas in your life, so they will affect you less and less in the future.”

15. Why am I just now remembering what happened?

- “It is not unusual for people [their words for experience / who have had such experiences / who have been sexually assaulted] to go through a time with little memory of what happened only to recall later.”
- “A lot of research has found that the human brain is capable of preventing unwanted memories or parts of unwanted memories from coming into awareness – sometimes for long periods of time: not only months or years, but even decades in some cases.”

Followed by:

- “In the aftermath of a sexual assault or other trauma, it's totally normal to try not to remember or think about it. If, and when, the memories eventually come back into awareness, it's usually because something happens that – for that person, at that time – triggers recall or ‘recovery’ of those memories.”
- For some, it's having another traumatic experience that brings the same feelings of helplessness, powerlessness, violation, shame, etc. For others, it's when someone important in their life has a similar experience.”

- “I’m not sure why it’s happening for you, or why it’s happening now. But I do want you to know that there are qualified professionals who can help you find your own answer to this question. They can help you find and develop the resources you need to deal with the memories and experiences that have come back.”