

“Why didn’t I do anything? What was wrong with me?”¹

Background

Sexual assault is a growing problem in the U.S. Nationally, 19.3% (23 million) of all women have reported being raped in their lifetime. Also, 43.9% have reported other sexual violence ranging coercion to noncontact unwanted sexual experience.

Autonomic Nervous System

Figure 1 shows how the neurobiological system may respond during a life threatening event (like sexual assault). First the victim freezes and adopts a “stop-look-listen” response. In this stage, there is “fear bradycardia”⁸ and focused attention to the threat. Next, the sympathetic nervous system enables the victim to flee or fight. As the arousal level heightens, the victim’s pain response decreases. In the fright stage, “freezing” begins the “defense cascade” which includes measures to prevent further injury and preserve life. Once the fear reaches this threshold, the victim progressively “shuts down” and experiences TI. The blue boxes represent automatic responses, during which there may also be unconscious dissociation. During these states, the conscious brain becomes confused; the victim cannot hear, see, or perceive well. Thoughts and reasoning no longer make sense. As the cascade continues, the parasympathetic nervous system drops arousal and activates life saving immobility. The body has limited awareness and loses voluntary control. Emotional involvement fades away and memory cannot be optimally consolidated.⁸

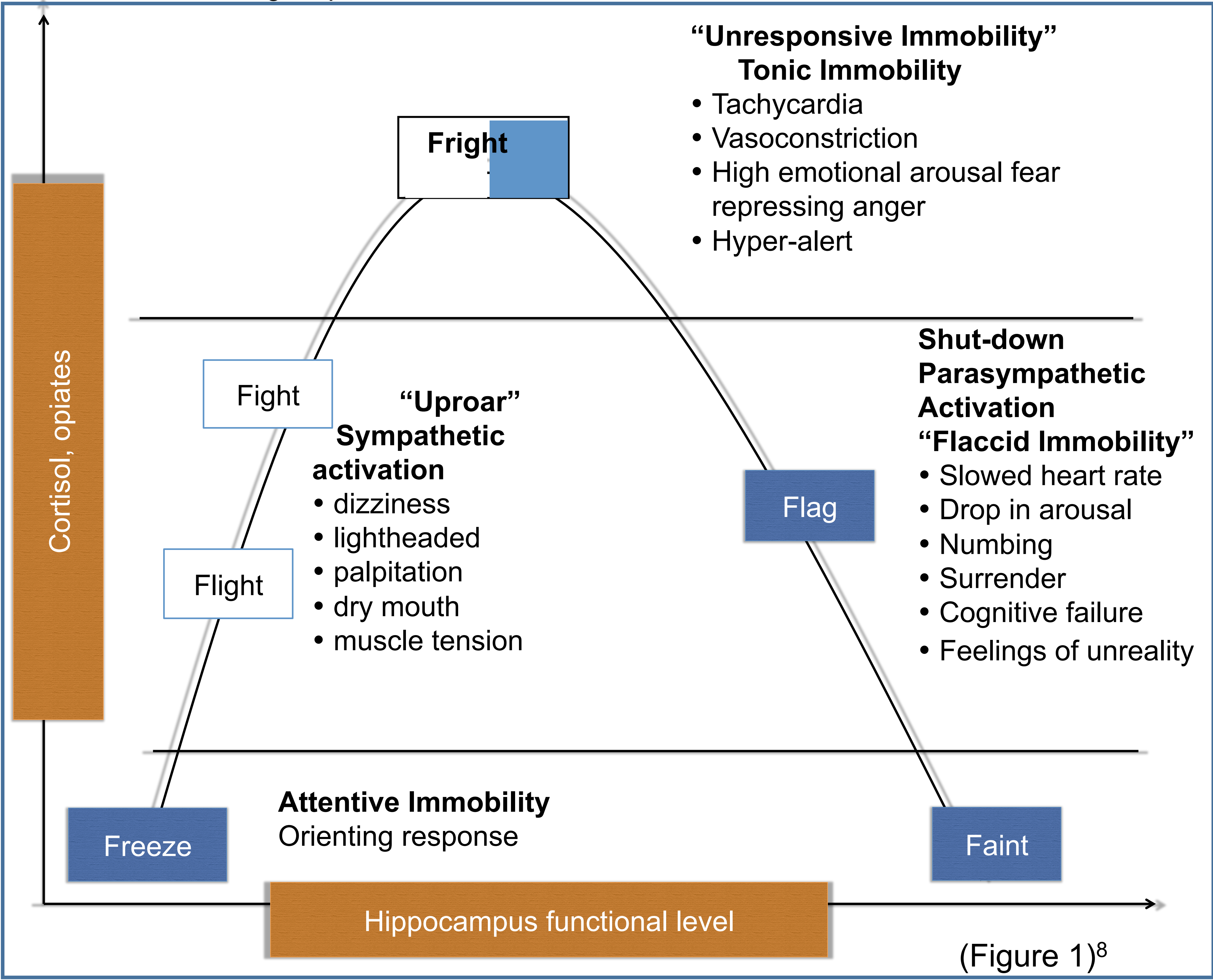
Nursing Problem

Only about 16% of sexual assault cases are reported to law enforcement, and between 2-20% ever seek help from any source.⁵ These astoundingly low numbers reveal that we need to understand the internal barriers to help-seeking behavior for these victims. Because most women are unaware of why they reacted they way they did, they experience shame and guilt after the sexual assault—one of several barriers to seeking help.

Tonic immobility (TI) is a natural neurobiological response that happens to animals and humans. Recent research has investigated this response, calling it rape-induced paralysis. The victim has loss of movement, inability to call out for help, numbness, insensitivity to pain, and shivering.⁸ TI is elicited by extreme, inescapable fear; the victim has a fear for its life and feels trapped. The instinct activated is that of “holding still” to avoid further damage or death.⁸

“I froze with fear. I wanted to scream but nothing came out.”⁴

“After years of blaming myself, questioning myself, feeling tormented, I now finally understand why I froze.”¹



Memory Encoding

The hippocampus is a primary structure involved with encoding memories. This structure is also involved in declarative memory (putting memories into words),⁶ The hippocampus has an optimal function when cortisol is not too high or low.³ During the fear cascade, the body experiences a flood of hormones that compromise memory consolidation. It is logical to infer that since this structure is hindered by excess cortisol, the victim may not be able to recall the events of her trauma, especially in a chronological order. The amygdala, which is responsible for emotional expressions and has high concentrations of opiate receptors, is also affected. During trauma, the body releases natural opiates which decrease pain reception and numbness during TI. With the high amount of opiates attaching to the amygdala’s receptors, its function is impaired. Increased opiates can also cause a flat affect post trauma. If the victim were to speak of what happened, she may show no emotion related to this process¹.

Implications for Practice

When a sexual assault case is reported to police and other sources of help, victims have reported dealing with secondary victimization, especially by law enforcement (LE). When the victim cannot recall events in a chronological order, LE is inclined to believe the victim is lying. Providers need to become aware of these neurobiological responses.

Most victims are also unaware of the neurobiology of trauma. After hearing about this information, it gives victims peace of mind and helps them come to terms with their assault.

Nurses especially need to be aware of this to better comfort their patients. Major calls for policies and procedures to provide trauma-informed nursing practice are underway. Therapeutic communication might include “**This was not your fault**” “**This was not supposed to happen.**” “**we have found that many women freeze or become unable to fight back....this is a normal response.**”

Provider Lack of Awareness

“The stuff they say makes no sense”¹

“She just laid there, so she must have wanted it”¹

“No one would act like that if its true”¹

They lie all the time. I can tell.”¹

Implications for Research

EMDR: Many victims of sexual assault experience PTSD. A new area of research regarding this is using EMDR therapy to decrease post trauma symptoms, and many associations world wide, such as the American Psychiatric Association, Department of Defense, and the Institute of Medicine agree that EMDR should be the first line treatment of PTSD.²

CBT: Cognitive therapies (broadly known as cognitive behavioral therapy [CBT]) focuses on the how the victim’s perception of the event influences her emotional response to it. The goal of cognitive therapy is to help change the distorted thinking of the event (especially if the victim has self-blame) and thus better coping mechanisms. However, more controlled trials must be done with these therapies.²

Yoga and Trauma-informed Yoga: Yoga has also been studied to decrease the symptoms of PTSD. Research shows that the more a victim participated in yoga, there is a greater decrease in PTSD symptom severity and depression symptom severity, as well as a greater likelihood of a loss of PTSD diagnosis compared with non-participants.⁷