

### The Benefits of Grounding Strategies in Emotion and Arousal Regulation

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### **Mini Review**

Volume 7 Issue 2 Received Date: October 08, 2023 Published Date: December 21, 2023 DOI: 10.23880/mhrij-16000233

### Abstract

In this article, the author discusses the benefits of grounding strategies in modulating arousal and emotion. These essential resources are reminders of the present and are well-used in trauma therapy, temporary or persistent affect and arousal dysregulation, and crisis interventions. Grounding strategies foster emotional and physiological stabilization by focusing on the present environment and anchoring oneself in the here and now. Furthermore, they restore a sense of calmness and safety, promote a sense of control, and decrease the risk of dissociation in trauma treatment. The author analyzes from a Jungian perspective the impact of a patient's dissociative manifestation and how to mitigate it using a compensatory grounding strategy.

**Keywords:** Arousal and Emotion Dysregulation; Window of Tolerance; Trauma; Complex Trauma; Dissociation; Autonomic Nervous System; Grounding Strategies; Affect Regulation; Body Centered Interventions; Survival Responses; Spectrum of Dissociation

**Abbreviations:** ACE: Adverse Childhood Experience; APA: American Psychiatric Association BPD: Borderline Personality Disorder; C-PTSD: Complex Post-traumatic Stress Disorder; DES: Dissociative Experience Scale; DID: Dissociative Identity Disorder; DMT: Dance Movement Therapy; EMDR: Eyes Movement Desensitization and Reprocessing; PTSD: Post-Traumatic Stress Disorder; OCD: Obsessive-Compulsive Disorder; TCE: Traumatic Childhood Experience

### Introduction

Lizzie, a woman in her thirties with a history of repeated traumas from infancy through early adulthood, experienced parental neglect, physical and emotional violence, and later sexual abuse. Such Traumatic Childhood Experiences (TCE) are risk factors for developing Complex Post-Traumatic Stress Disorder (C-PTSD). Physical and sexual abuse during childhood [1], as well as an unstable family environment [2], tend to foster dissociative symptoms.

C-PTSD is a "disorder that may develop following exposure to an event or series of events of an extremely threatening or horrific nature, most commonly prolonged or repetitive events from which escape is difficult or impossible" [3]. It includes six symptom clusters:

- re-experiencing the trauma in the here and now;
- deliberate avoidance of reminders likely to produce reexperiencing of the traumatic event(s);
- persistent perception of heightened current threat.

In addition to the three core clusters of PSTD, C-PTSD is characterized by:

- severe and pervasive problems in affect regulation;
- persistent beliefs about oneself as diminished, defeated or worthless, accompanied by deep and pervasive feelings of shame, guilt or failure related to the stressor;
- persistent difficulties in sustaining relationships and in feeling close to others.

The disturbance results in significant impairment in personal, family, social, educational, occupational or other important areas of functioning. If functioning is maintained, it is only through significant additional effort" [3].

Even though dissociative symptoms are not featured as one of the main cluster symptoms of C-PTSD, they are included in the affect regulation cluster.

Repeated or prolonged traumatic experiences have a long-term impact on the autonomic nervous system, developing a pattern of reactions that may become the default response mode. Over time, it impedes the development of emotion regulation and the exploration of other coping strategies. Subsequently, the anticipation of threat or even a subtle current reminder of past traumatic events occurring within a safe environment will reactivate the maladaptive habitual pattern [4]. Thus, the past is not differentiated from the present, and affect regulation becomes problematic. Instead of integration of trauma, compartmentalization and division of the psyche may occur.

### **Definition of Dissociation**

APA defines dissociation as "a splitting of consciousness (depersonalization), identity (DID), memory (dissociative amnesia), or a loss of somatic control (conversion disorder)" [5]. In the late 19<sup>th</sup> century, Janet [6] considered dissociation as a failure of integration, and Jung CG as a "normal psychic defense against a potentially devastating trauma" [7]. Therefore, dissociation is a survival mechanism of the psyche to withdraw from a traumatic scene when physical escape is impossible. It enables survival while enduring the traumatic event and later the continuation of outer life; however, it comes at the cost of significant internal fragmentation. Individuals with dissociative symptoms tend to oscillate between being stuck in or disconnected from the traumatic experience.

Kalshed [8], a Jungian Analyst, deepened Jung's theory on trauma and mentioned that dissociation

« involves an active attack by one part of psyche on other parts. It is as though the normally integrative tendencies in the psyche must be interrupted by force.» Here, dissociation is viewed as an opposing force working against the healing process, the trauma integration, and the personality development [9]. Cardena E [10] summarized the various definitions of dissociation given by past and current authors within the field of personality and clinical psychology as follows:

"First, dissociation is used to characterize semi-independent mental modules or systems that are not consciously accessible and/or not integrated within the person's conscious memory, identity, or volition. Second, dissociation is viewed as representing an alteration in consciousness wherein the individual and some aspects of his or her self or environment become disconnected or disengaged from one another. And third, dissociation is described as effects such disparate phenomena as nonorganic amnesia, the warding off of current physical or emotional pain, and other alterations or consciousness including a chronic lack of personality integration such as Multiple Personality Disorder", currently named Dissociative Identity Disorder (DID) [3].

Dissociation is also observed with other trauma-related disorders and comorbid disorders such as borderline personality disorder, eating disorders, addictive disorders, obsessive and compulsive disorders, and anxiety disorders.

### Normal versus Pathological Dissociation

Nevertheless, dissociation is not necessarily pathological. Braun BG [11] designed the model of the dissociation Spectrum that ranges from normal dissociation (e.g., daydreaming, fantasizing) and peak performance (e.g., being in the flow) to advanced fragmentation such as Dissociative Identity Disorder (DID). Along the continuum between the two poles are positioned several pathological dissociative manifestations such as psychogenic amnesia, fugue states, depersonalization (e.g., splitting of consciousness), and derealization (e.g., experiencing other persons, objects, or the world as strange or unreal).

Dissociation may have a different impact depending on the psychiatric disorder. Even though dissociative symptoms appear in many psychiatric disorders, DID and dissociative disorders have the highest score on the DES (Dissociative Experience Scale), followed by PTSD and Borderline Personality Disorder (BPD) and in descending order, conversion disorders, somatic symptoms disorders, substance-related and addictive disorders, eating disorders, and schizophrenia. OCD and mood disorders have the lowest scores on the DES [12].

### Grounding Strategies, an Antidote to Arousal and Emotion Dysregulation

In the case of Lizzie, among many other symptoms, such as persistent beliefs of worthlessness (e.g., *"I have lost my dignity, I am forever damaged."*) and negative emotions

(e.g., rage, heightened anxiety, pervasive feelings of shame, despair, and hopelessness), she experienced dissociative manifestations of depersonalization and derealisation. She dissociated physically and mentally, and her autonomic nervous system was highly disturbed. While being raped, she was confused about what was happening to her; she became disconnected from her body, felt nothing, and saw her body from a distance. As Erich Fromm stated in 1965, there is "dissociation between the observing ego and the experiencing ego" [13]. Furthermore, Lizzie recurrently felt like she was falling into an endless black hole. This falling sensation repeatedly occurred not only in reality when confronted with traumatic cues but also in her dreams. For instance, she dreamt that while she was walking, the floor suddenly collapsed.

Symbolically, this falling sensation into a bottomless black hole implies that there is nothing to stop the fall, nothing to grab onto, nothing to stand on, and nothing to feel connected to; there is only void, darkness, and isolation. As this experience never seemed to end, it infers that there were no time limits or time distortion. The void may represent a lack of emotional containment and boundaries; darkness may refer to confusion and blurred vision often experienced during dissociation.

However, Lizzie mentioned that she impulsively touched the floor at the onset of one of these falling sensations. As Pat Ogden would say, a part of her was still connected to an orientation reflex. Her urge to sense the floor reoriented her attention to the support beneath her body. It enabled her to reconnect with the current environment and the present moment. Hence, she became less dizzy, slightly more balanced, and could return to a more tolerable emotional and physiological activation state. Her intuitive body movement impulse was an antidote to a dysregulation of her autonomic nervous system. That tactile grounding strategy made her feel anchored and stabilized, a complete opposite sensation of the never-ending fall. Thus, this grounding strategy encompasses a compensatory function for her previous outof-control sensation.

As emphasized above, grounding techniques help regulate arousal and emotion. Yet, they usually act more as emergency strategies to find or restore a sense of calmness and safety. They have different purposes than trauma processing interventions, whose aim is to reorganize the traumatic experience. Nonetheless, "attention to the regulation of arousal must be a key feature of any effective treatment for trauma" [14].

As trauma impacts both body and mind, dwelling only on talking cure and narrative practices would be insufficient to treat trauma; these approaches do not address autonomic nervous system dysregulation. Top-down interventions such as cognitive strategies, reappraisal, narration, and gathering information are efficient as long as the individual is stabilized enough to access one's prefrontal cortex and cognitive capacities. On the other hand, bottom-up interventions tackle symptoms linked to hyper- or hypo-arousal of the nervous system [15]. Therefore, trauma-related interventions should not overlook grounding techniques and body-centered interventions. Several therapeutic approaches, such as Somatic Therapy, Sensorimotor Therapy developed by Pat Ogden [15], Dance Movement Therapy (DMT) [16], and EMDR, include the body in trauma recovery.

# States of Physiological and Emotional Disregulations

Dan Siegel [17] developed a model of autonomic arousal in 1999 entitled "Window of Tolerance." The arousal and emotional states experienced within the optimal zone, such as calmness or at least bearable emotions susceptible to being integrated into the psyche, promote effective responses to emotion and sensation. Conversely, states above or below the window of tolerance, or alternating between the two, are signs of autonomic nervous system dysregulation. Some reasons for this dysregulation include unmet needs, trauma experiences, intensive stress, and uncertainty.

On the one hand, the states experienced above the window are dominated by the Sympathetic Nervous System (SNS) and hyperarousal activities; the typical survival responses are fight or flight. In such a case, individuals may be emotionally overwhelmed, shaky, highly reactive, irritable, impulsive, agitated, hypervigilant, fearful, have high blood pressure, a pounding heart, heightened anxiety, and experience concentration difficulties. Furthermore, intrusive symptoms such as nightmares, flashbacks, memories not intentionally evoked, and racing thoughts may occur. People try to regulate these states using inadequate strategies (e.g., compulsive behaviors, substance abuse, self-destructive behaviors) [18].

The freeze response is another survival defense activated by the SNS but combined with physical immobility and muscular contraction. Individuals are terrified, frozen, speechless, yet hyperalert, with a sensory acuity to grasp any extra information [18,19].

On the other hand, the states experienced below the window of tolerance are dominated by the Parasympathetic Nervous System (PNS). Signs of hypoarousal are decreased heart rate and respiration, sudden exhaustion, motor weakness, time loss and distortions, flat affect, numbness, disembodiment, and increased tolerance for pain. Individuals may collapse, dissociate, or be slow to respond.

Survival responses driven by the PNS are immobilization, feigned death, or total submission, specifically when no escape is possible or when the perpetrator happens to be the attachment figure [14]. Freeze, fight, flight, and feigned death are survival responses also observed in the animal reign with threat occurrence.

### **Grounding Definition**

In psychology, "being grounded" refers to being mentally and emotionally stable [20]. In Dance Movement Therapy, grounding stands for awareness of physical and emotional experiences [16]. In case of dissociative symptoms such as depersonalization, people are disconnected from their bodies and emotions. Depersonalization is "a state of mind in which the self appears unreal. Individuals feel estranged from themselves and usually from the external world, and thoughts and experiences have a distant, dreamlike character" [5]. As opposed to this symptom, Arielle Schwartz [21] defines grounding as being embodied, sensing one's body and feeling, for instance, one's feet on earth. This strategy refers to connecting oneself to something concrete in the environment, in that case, the earth. Indeed, being literally grounded also means being physically stable on a floor and sensing this underlying support. In order to increase further proprioceptive sensations, one could stand up and feel both feet pushing against the floor or sit on a chair to feel that the body fits into the seat. Another proprioceptive grounding strategy would be to press the palms together and notice one's sensations.

In analytical psychology, being grounded refers to being connected to Mother Nature in its positive aspects, such as nourishment, containment, and growth. Symbolically, plants have roots that give them stability and firmness to grow. The roots grab the nutrients within the soil and nourish the plants. From a Jungian perspective, being grounded and rooted means having a reliable environment where one may feel emotionally and physically safe, mentally stable, and grow psychologically. It could also refer to one's cultural or family roots and origins. Therefore, the mental health practitioner must be culturally sensitive and provide a safe and psychologically nourishing environment to facilitate trauma integration, psychological growth, and personality development.

As seen above, Lizzie's grounding strategy had a compensatory component; from falling into a bottomless hole and being disconnected, she could sense the earth as an underlying support and become embodied. From disconnection to oneself, grounding strategies may promote connection with one's body, the immediate environment, and the present time. Therefore, it is worth considering the compensatory function of grounding techniques when suggesting one to the patient. For instance, if it is an olfactive fragmented sensory experience, the mental health practitioner may suggest focusing on a smell in the immediate environment (e.g., a candle or a flower).

### **Grounding Strategies' Purposes**

As traumatic experiences, escalating stress, or a crisis tend to activate intense physiological reactions and overwhelming emotions, practitioners need to learn how to address those before focusing on processing trauma or neutralizing intense stress responses.

Grounding is a crucial resource in emotional regulation and trauma recovery. These strategies are excellent tools to modulate the arousal and emotionally stabilize the patient. They mitigate post-traumatic reactions, enable attention reorientation to the present environment, and anchor in the here and now, thus differentiating the past from the present moment. They have a soothing aspect, restore a sense of calmness and safety, promote control, and decrease the risk of dissociation.

## Appropriate Time to Use Grounding Strategies

Grounding strategies can be used whenever the patient has left his or her window of tolerance. As physiological responses can be overwhelming [22] while processing the trauma, psychoeducating the patient on how to practice these strategies during the preparation phase is essential. Thus, practicing them at the beginning of a session will prevent the patient from being highly overwhelmed and lessen the risks of shutting down, feeling numb, and dissociated, whereas practicing them at the end of a session will restore a sense of calmness and safety. Once the patients know how to use them, they are invited to practice them between sessions whenever they need to reclaim a sense of safety.

### **Examples of Grounding Techniques**

Grounding techniques include, among others, guided visualization, relaxation, mindfulness exercises, movement, sensory-based interventions, strength-based questions, and spatial and temporal orientation. Depending on the patient's symptoms, the mental practitioner chooses the appropriate mode for his or her patient. One of the most common grounding techniques is sensory-based. The 5, 4, 3, 2, 1 technique involves the five senses (hearing, seeing, touching, smelling, and tasting) [23] to increase awareness of the sensory experience. For example, the individual would describe:

- the color and the shape of **five** objects nearby,
- four current sounds (e.g., passing car, train or motorcycle,

people talking, rain falling, kids laughing),

- **three** tactile sensations by touching various objects (e.g., chair, carpet, table, blanket, stress ball, squeezing pillow, stuffed animals) and sensing their temperature, weight, and texture,
- **two** smells (e.g., essential oils, perfume, flower, scented candle),
- **one** taste (e.g., morning coffee, water, gum, candy, or a lemon). If nothing is available in the immediate environment, the person is asked to focus on something recently eaten.

The sensory-based techniques can be practiced together or separately, focusing only on one sense at a time. For instance, a simple practice is to put one's hand in warm water for a few seconds, switch to cold water, and focus on the sensations on the hands. If the person is at home, s/he could take a warm shower and alternate with cold water.

Needless to say, it is essential to adjust the instructions according to the location. The auditory, olfactory, and gustative stimuli might be problematic to identify in a therapy or soundproof room. Plus, if the individual is confused, overwhelmed, or dissociated, the practitioner must be more directive and ask precise questions such as: *"Find three blue objects in the room, two red ones"* or *"What do you see on this wall?"* [23].

Reorientation techniques focus on spatial and temporal orientation, whose aim is to distinguish the past from the present, especially when the inner wounded and traumatized child is reactivated. Some examples of anchoring one's current age are:

- Saying loud: "I am... year old. Today's date is.... and it is ... o'clock right now.. I live in..., I am right now at my psychotherapist's office and I am safe now."
- Looking at one's hand or any other physical features (e.g., height, face) and noticing they are no longer child's features increases the feeling of being rooted in the present moment and the awareness of being an adult having options.
- Noticing any objects in the environment indicating they are no longer in the time of the trauma (e.g., recent electronic devices, gift recently received).

At the end of the session, it is beneficial to use guided imageries and imagine, for instance, putting away the remaining disturbing sensations, emotions, thoughts, and images into a container that will be locked up. Then, breathing and relaxation exercises along with the patient's safe place are excellent grounding techniques to close a session peacefully.

Even though breathing exercises are excellent soothing

techniques, they can be counter-indicated or used very cautiously with patients who are already in a hypoactivation state and have the tendency to dissociate. Indeed, increasing the PNS activation, in that case, might increase the risk of dissociation.

### Conclusion

In summary, grounding techniques are tools that stabilize someone who has left one's window of tolerance and is either in a hypo- or hyper-activation state or alternating between the two. As trauma and crises, among many other factors, activate heightened physiological sensations, knowing how to use them is essential and will facilitate trauma work and crisis intervention relief. Grounding strategies enable the differentiation between the past and the present moment and restore a sense of safety and calmness, making one feel more embodied and rooted in the here-and-now. Once individuals with emotional and arousal dysregulation have experienced the positive impact of these techniques and have been taught by a mental health professional how to practice them, they may feel more empowered and develop a sense of control in the trauma recovery process. Consequently, they will be more prone to explore and desensitize their trauma and use these resources whenever needed.

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