

A SYSTEM-BASED APPROACH TO TRAUMA-INFORMED PATIENT SIMULATIONS

Patricia Rush, MD MBA and Audrey Stillerman, MD

Co-Founders, THEN – The Center for Collaborative Study of Trauma, Health Equity, and Neurobiology
May 2019

In the past 6 months, our small Trauma-Informed collaborative [THEN] has been approached by several groups about creating "scripts" for Trauma-Informed Patient Simulations for medical and advanced practice nursing trainees.

We are writing to offer our recent experience in doing trauma-informed patient simulations and case discussion in two teaching venues: for beginning medical residents as part of the THEN Foundations course (Pat), and for practicing physicians, advanced practice nurses, social workers and psychologists in an ECHO [Extension for Community Health Outcomes] course, sponsored by the Illinois Chapter of the American Academy of Pediatrics (Audrey).

The cases for the patient simulations and ECHO discussions included a background of developmental trauma, intergenerational trauma, neglect, interpersonal violence, family substance abuse. Associated medical and emotional conditions included chronic pain, thyroid and autoimmune disease, uncontrolled diabetes and hypertension, depression, failure to thrive in children, social and educational difficulties.

A Glossary is at the end of comments, below.
Thanks for your consideration.

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Background on Patient Simulation: over the past 20 years, it has become a standard component of advanced clinical training for trainees to learn clinical skills and demonstrate competency in short, primarily outpatient simulations of patient encounters - with a "simulated patient" (an actor using a script with brief instruction by a skilled clinician).

Components of Patient Simulation:

- **Target skill** to be learned/demonstrated by the trainee [examples: cardiac history/physical, mental status exam in patient with early dementia, demonstrating patient teaching for a new diabetic, etc.]
- **"Script"** for the actor/patient with instructions of specific things to say and behaviors to act out which simulate the target clinical situation and correlate with the trainee skill to be demonstrated
- **Simulated exam room** - often with video equipment
- **Instructions and goal-setting for trainee** prior to the simulated encounter - plus debrief/critique at the end - usually with a pass/fail grade plus recommendations to support continued skill building
- **Preceptor** who has mastered the skill to be demonstrated

Our recent experience with Trauma-Informed Patient Simulations:

We wholeheartedly support introducing Trauma related skill building into clinical training.

However, in designing and carrying out these recent simulations and case discussions, we realized that Trauma Informed simulations are MUCH more complicated than other Patient Simulations - and require much more preparation, particularly by the Preceptor:

- **Before Beginning:** As faculty, we need to make sure that we ourselves are "regulated" and prepared to receive trainee emotional distress (or our own) provoked by the case. In planning the physical environment for the Simulation, we need to include a place for us to debrief/refuel as necessary. We also need to be honest about how confident we are about these concepts and utilizing this framework - in teaching and in our own clinical practice.

- **Target skill:** As faculty, we need to be precise about exactly what we want the trainee to learn from the simulation. Possible examples: patient presenting with severe, new clinical symptoms may have had recent major trauma - or - an adolescent/young adult presenting with a combination of somatic symptoms, emotional distress, difficulty at school-work-home may have suffered complex, developmental trauma.
 - Are we planning to teach/expecting trainee to learn at least basic concepts/practice of physical-emotional regulation?
 - Can the trainee recognize and explicitly articulate the connection between trauma and physical symptoms-disease, both that it exists and why?
 - Do trainees need to know that often the most significant symptom of trauma (recent or developmental) is disrupted sleep? Do trainees need to know how to take a sleep history before doing a Trauma-Informed Patient Simulation?
 - Are we planning to teach/expecting trainee to know that multiple, vague somatic symptoms are not malingering but very likely to be the report of an overwhelmed, emotionally-and-physically dysregulated person, likely with depression - and also very likely to have a complex trauma history with hyperarousal, dissociation, alexithymia, and loss of interoception?
 - Do we envision teaching the fundamentals about dissociation, alexithymia, the role of interoception (intact sense of one's own body) and other key concepts - before trainees do the Trauma Simulation?

Prior to our recent Trauma Informed Simulations in fact, our faculty had provided these very bright medical trainees several lectures/case studies about trauma, physical-emotional regulation, sleep, dissociation-alexithymia-interoception, etc. We were surprised at how difficult it was for the participants (residents and practicing clinicians) to grasp the contribution of Trauma to the patient presentation in the Simulations. Our own reflection afterwards was that although the residents may have mastered the individual scientific concepts, it was very challenging for them to integrate the Trauma perspective into a standard (and idealized) patient encounter. As our mentor Bruce Perry says, it is a very different skill just "naming what symptoms you see in front of you" (assigning typical medical diagnoses) versus carrying out a "clinical reconstruction" of the physiologic pathway from trauma/neglect to symptoms/disease - that led to the patient presentation. [Using TIC terminology, "It's not what's wrong with you, it's what happened to you."]

- **Instructions and goal-setting for trainee:** in addition to the foundational knowledge-skills needed for a trainee to perform a Trauma-Informed Patient Simulation (listed above), the trainee/clinician needs to be given a **Trigger Warning** (that the traumatic content of the Simulated encounter may be triggering), guidelines for **Self-Care**, and a **second debriefing** by a Preceptor a few days later. In our experience, the Trauma Patient Simulations are especially triggering for trainees (much more so than reading or classroom discussions). Without any prompting during debriefing, our recent Simulation trainees spontaneously revealed various traumatic facts about their own family history. Honestly, despite decades in trauma clinical work and trauma education, we had not budgeted adequate time for a lengthy debriefing of this type.
- **Preceptor skills and preparation:** A key underlying premise of all Patient Simulations is that the Preceptor has mastered the skills to be demonstrated by the trainee. For Trauma-Informed Patient Simulations, we believe the Preceptor needs an intermediate-to-mastery level of skill regarding:
 - how to support our own regulation
 - how developmental trauma, acute and chronic adult trauma (of various types) can present (a wide variety of clinical presentations of trauma are possible)
 - knowledge that presenting emotional-physical signs and symptoms are literally the "tip of the iceberg" of deeper, historical neurobiologic-immunologic-endocrinologic (whole system) physiologic interactions.

- clinical intuition backed up by patient history and physical signs/diagnostic results - about whether a patient is mostly self-regulated or mostly dysregulated (emotionally and physically); for pediatrics-adolescents, this assessment also applies equally to the family
- ability to apply a Life Course Analysis to patient history vis-à-vis scripted clinical presentation
- how to establish a sense of safety for the patient-family during the interview and work toward building trust
- how to facilitate a sensitive discussion while allowing the patient to "pace" the interview - avoiding intrusive questions - and allowing the patient to reveal their history in their own way and time
- how to take and assess a patient sleep history
- the signs and symptoms of hyperarousal, dissociation and alexithymia and probable loss of interoception
- knowledge that reported lack of memory about details is rarely intentional but often a hallmark of complex trauma with dissociation (either prior or contemporaneous)
- a framework for how to begin to design a treatment regimen in collaboration with the patient and family
- how to discuss with the trainee the Trigger Warning about potentially triggering traumatic content of the Simulation
- how to succinctly give the trainee guidance about Self-Care
- how to debrief all trainees, particularly those who have been triggered or experience Secondary Trauma from the Simulation
- how to debrief/ re-regulate oneself

GLOSSARY

* **Regulation** (physiologic and cognitive-emotional): outcome of sympatho-vagal balance; ability of body-brain to maintain a stable internal environment, despite ordinary and extraordinary challenges. An experience of calmness, well-being, hopefulness, ability to modulate hyperarousal, ability to concentrate, analyze complex information and plan ahead.

* **Life Course Analysis** - analysis of a person's clinical history (epochs from pre-conception to present) with clinical reconstruction of a person's health, possible exposures and traumas, onset of clinical symptoms, diagnosis and course of syndromes or diseases. One goal of Life Course Analysis is to look "upstream" (back in time) from current symptoms and diagnoses to identify root causes and symptom/disease trajectory.

* **Hyperarousal** - cluster of symptoms including heightened anxiety, accentuated startle response, hypervigilance, difficulty sleeping, difficulty concentrating, irritability, easy to lose temper or be impulsive. Common in patients with trauma. Attributed to loss of sympatho-vagal balance with increased and persistent sympathetic stimulation.

* **Dissociation** - spectrum of experiences of detachment/disconnection in a person's thoughts, perceptions, memory and sense of identity. Two classic forms of dissociation can be de-realization [sense of unreality] and de-personalization [a feeling of being an outside observer of one's life]. Although previously dissociation was felt to be rare and a sure sign of mental illness, new neuroscience research shows that dissociation is a normal part of brain function when the brain is overloaded with stimuli. The International Society for Traumatic Stress Studies (ISTSS) estimates that 20% of people experience some degree of significant dissociation, concluding that dissociation is underdiagnosed and undertreated. [reference attached]

* **Alexithymia** - an inability to identify and use language to describe emotions and memories, associated with marked dysfunction in emotional awareness, social attachment, and interpersonal relating.

* **Interoception** - physical self-awareness; intact sense of ability to feel and understand what is going on inside one's own body. Also known as RSFC - Resting State Functional Connectivity. Intact interoception is the outcome of integrated functions between the deep brain and the cortex. "Misrepresentations" or complete loss of connection between the body's signals and the brain's interpretation of signals is a hallmark of trauma. Among other conditions, loss of interoception has been demonstrated in children growing up with low levels of supportive parenting, victims of sexual assault, and persons with morbid obesity.