



The Ubiquitous Nature of Trauma in Medical Practice and Training: Being Trauma Aware

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Case Vignette #1 (Part 1 Trauma)

Dr. Anthony is a 55 year-old internist who was recently diagnosed with colon cancer. He neglected to get his colonoscopy when he turned 50 because he was too busy. He never had been sick before. His surgery was complicated by excessive blood loss; a mesenteric artery was accidentally nicked during the colon resection. His recovery in the ICU was protracted because of bleeding complications related to Lovenox therapy. He spent over 5 days in the ICU. His nurses in the ICU seemed cold and distant and often times frazzled and mechanical, and always in a hurry to leave his room. It was as if, they were afraid of talking to him. Dr. Anthony was transferred to the regular surgical floor but had a prolonged ileus from fluid overload, a result of treating low blood pressure primarily with IV fluids. The cumulative weight gain over his ICU stay was 10 kg. The intern was afraid to start Lasix as his attending was at a conference for the weekend. So his pain was prolonged from this decision.

An article in Critical Care Medicine noted that caretakers of ICU patients are also at higher risk of PTSD. Approximately what percentage of nurses working in an ICU went on to develop PTSD?

- 1%
- 2%
- 5%
- 10%
- 25%

Answer = 25%

Intensive care unit (ICU) nurses work in a demanding environment where they are repetitively exposed to traumatic situations and stressful events. A study from University of Colorado Hospital Science Center documented that 24% (54/230) of the ICU nurses tested positive for symptoms of PTSD related to their work environment, compared with 14% (17/121) of the general nurses ($p = 0.03$). ICU nurses did not report a greater amount of stress in their life outside of the hospital than general nurses. There was no difference in symptoms of depression or anxiety between ICU and general nurses. In the second survey of ICU nurses from the metropolitan area, 29% (41/140) of the respondents reported symptoms of PTSD, similar to our first cohort of ICU nurses.

Case Vignette #1 (Part 2 Spousal Trauma)

Dr. Anthony's wife felt quite overwhelmed by the entire process. She had been involved with her own father's end of life ICU stay within the past year. She was asked to make decisions on behalf of her husband, which she felt were far beyond her capacity to understand. Her expectation was that this would be an uncomplicated procedure. She was also angry that she was placed in this position as a consequence of her husband not attending to his own preventative health care needs.

Case Vignette #1

(Part 3 home stress)

With much relief Dr. Anthony finally returned home. However, recovery from surgery was much more difficult than he imagined. The pain was constant and his appetite was minimal. His surgeon was worried that poor nutrition was impeding healing. When Dr. Anthony got home his wife continued to feel overwhelmed. He counted on her to be his home “nurse”. Instead he felt abandoned and hired a home health aid to help with his activities of daily living during a prolonged convalescence.

What percentage of family members of ICU patients sustained PTSD symptoms 90 days after discharge or death from the ICU?

- 5%
- 10%
- 25%
- 33%
- 90%

Answer = 33%

In a study from France, 284 relatives of ICU patients manifested Post-traumatic stress symptoms consistent with a moderate to major risk of PTSD in 94 (33.1%) family members. Higher rates were noted among family members who felt information was incomplete in the ICU (48.4%), who shared in decision-making (47.8%), whose relative died in the ICU (50%), whose relative died after end-of-life decisions (60%), and who shared in end-of-life decisions (81.8%). Severe post-traumatic stress reaction was associated with increased rates of anxiety and depression and decreased quality of life. Post-traumatic stress reaction consistent with a high risk of PTSD is common in family members of ICU patients and is the rule among those who share in end-of-life decisions.

Case Vignette #1 (Part 3 PTSD Sxs)

Three months after surgery, Dr. Anthony was plagued by insomnia and intrusive memories of his stay in the ICU. At six months he was given the okay to return to work. Initially just driving past the hospital resulted in palpitations. Returning to the hospital was incredibly difficult. He avoided walking onto the ICU and surgical ward where he had been a patient. At home he was irritable and cranky. When he discussed this with his surgeon, he received a blank look. Finally, his surgeon said, “Don’t worry you’ll get better soon.” But Dr. Anthony was still experiencing nightmares and flashbacks a year after surgery.

Some recent studies have shown the percentage of ICU patients who go on to develop symptoms of Posttraumatic Stress Disorder may be as high as?

- 1%
- 2%
- 5%
- 10%
- 25%

Answer = 25%

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Case Vignette #2 (Part 1)

Jason is a 7 year-old Hispanic male who recently moved from Los Angeles to Portland. His family moved to Portland to be closer to extended family. His nuclear family shares a small apartment with family. While in Los Angeles, Jason was enrolled in the local Head Start program. Jason recently started first grade in his new elementary school and is struggling to pay attention in class. He is unable to complete simple worksheets without the teacher's aid sitting next to him. He is easily distracted and constantly looking out the classroom window. He is known for frequently wanting to be excused to go to the bathroom without returning to class. He is often found playing with the water in the sink. His teacher is concerned that he is having problems making friends because of an inability to read social cues and grabbing toys from his classmates. He is very fidgety and has a hard time sitting in his chair for more than 5 minutes. Because of these behaviors his teacher recommended to his parents that Jason be seen by his pediatrician for possible ADHD.

Case Vignette #2 (Part 2)

His new pediatrician, Dr. Lacy, spent 30 minutes with Jason and his mother. She found Jason was born in a small village in Mexico with minimal prenatal care and a home delivery. He spoke very little as a young child, but otherwise had normal development. He attended Head Start but was held back a year before starting kindergarten because of 'immaturity' and language delays. Prior to the appointment Jason's mother and teacher completed Vanderbilt ADHD Diagnostic Parent Rating Scale (VADPRS) and Vanderbilt ADHD Teachers Rating Scale (VADTRS) respectively. Both mother and teacher rated Jason similarly. He met the cutoff scores for a diagnosis of ADHD combined type. Dr. Lacy found Jason to be very quiet, hiding behind his mother at the beginning of the appointment. He warmed up a little by the end of the appointment. Based on the information available, Jason's pediatrician made a diagnosis of ADHD and prescribed dextroamphetamine 2.5 mg bid. According to Jason's mother after two weeks of dextroamphetamine treatment, Jason was jittery and he had even more difficulties falling asleep. Dr. Lacy decided to switch from dextroamphetamine to methylphenidate 2.5 mg bid. On this medication regimen Jason did not show any improvement in concentration or fidgetiness. So Dr. Lacy increased the methylphenidate dose to 5 mg bid. On this dose Jason began to have pronounced insomnia and was more irritable according to his teacher. Dr. Lacy decided to get some consultation on this case as Jason failed to two stimulant trials.

Case Vignette #2 (Part 3)

Dr. Lacy called the Oregon Psychiatric Access Line about Kids (OPAL-K) a program that provides child psychiatry “curbside” consultation by phone. OPAL-K child psychiatrist Dr. Klein asked Dr. Lacy if it was possible that the high VADRS and VATRS scores could be due to psychological trauma. Dr. Lacy noted that when Jason’s family lived in Los Angeles, his parents did not let Jason play outside because another child had been hit by a stray bullet during a fire fight between rival gangs in the neighborhood. Although better than Los Angeles, their Southeast Portland neighborhood does not feel safe to Jason. Fireworks can cause extreme anxiety. Since moving to Portland he wants to sleep between his parents in bed. Dr. Klein noted that Jason may have ADHD or ADHD and PTSD since there can be overlap in the symptoms related to both these disorders. Dr. Klein shared that the most effective treatment for PTSD in youth at this time is trauma focused cognitive behavior therapy (TF-CBT). She also shared that like most adult and childhood psychiatric disorders, combined treatment with psychotherapy and psychotropic medications for PTSD was more likely to be effective than either treatment alone. She also noted that there were no FDA approved medications for PTSD in youth, but that there were some case studies that showed SSRIs like fluoxetine and escitalopram and alpha 2a agonists like clonidine and guanfacine provided some relief for youth with PTSD symptoms. After this consult Jason received TF-CBT and a trial of clonidine. His sleep improved within days of receiving clonidine. After several months of TF-CBT he was noted to be less disruptive at school. His concentration was better and he no longer asked to sleep in his parent’s bed.



What percentage of youth who have been attended Head Start programs have witnessed or been victimized by community violence?

- 10%
- 25%
- 33%
- 50%
- 66%

Answer = 66%

Nearly two-thirds of young children attending a Head Start program had either witnessed or been victimized by community violence, according to parent reports (Shahinfar, Fox, & Leavitt, 2000). Young children are exposed to traumatic stressors at rates similar to those of older children. In one study of children aged 2-5, more than half (52.5 percent) had experienced a severe stressor in their lifetime (Egger & Angold, 2004). The most common traumatic stressors for young children include: accidents, physical trauma, abuse, neglect, and exposure to domestic and community violence. [Victims 0–3](#) constituted 27.3 percent of all maltreatment victims reported to authorities in 2013 (U.S. Department of Health and Human Services, 2013) taken from U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. (2015). Child maltreatment 2013.

What is the fastest growing category of youth entering foster care in the United States?

- Infants
- School Age Youth
- Middle-Schoolers
- High School Students

Answer = Infants

- Infants are the fastest growing category of children entering foster care in the United States (Dicker, Gordon, & Knitzer, 2001). Infants removed from their homes and placed in foster care are more likely than are older children to experience further maltreatment and to be in out-of-home care longer (Wulczyn, Hislop, & Jones, 2002). In a survey of parents in three SAMHSA-funded community mental health partnerships, 23 percent of parents reported that their children had seen or heard a family member bring threatened with physical harm (Crusto et al., 2009).
- Nearly two-thirds of young children attending a Head Start program had either witnessed or been victimized by community violence, according to parent reports (Shahinfar, Fox, & Leavitt, 2000).
- In a survey of parents of children aged 0–6 in an outpatient pediatric setting, one in ten children had witnessed a knifing or shooting; half the reported violence occurred in the home (Taylor Zuckerman, Harik, & Groves, 1992).

Trauma in Medical School

What percentage of Medical Students describe feeling depressed during medical school?

- 2%
- 5%
- 10%
- 25%
- 50%

What percentage of medical students describe having suicidal ideations during medical school?

- 2%
- 5%
- 10%
- 25%
- 50%

25% depressed / 10% Suicidal

- JAMA December 6, 2016
- **Prevalence of Depression, Depressive Symptoms, and Suicidal Ideation Among Medical Students: A Systematic Review and Meta-Analysis**
- Depression or depressive symptom prevalence data were extracted from 167 cross-sectional studies (n = 116 628) and 16 longitudinal studies (n = 5728) from 43 countries. All but 1 study used self-report instruments.

Meta analysis results

- Overall prevalence of depression or depressive symptoms among medical students was 27.2%
- Overall prevalence of suicidal ideation was 11.1%
- Among medical students who screened positive for depression, 15.7% sought psychiatric treatment.

Conclusions

- Depressive symptoms among medical students is higher than general population.
- 12-month prevalence of a major depressive episode was 9.3% among 18- to 25-year-olds in general pop.
- 7.2% among 26- to 49-year-olds.
- BDI, CES-D, and PHQ-9 summary estimates obtained in the present study were between 2.2 and 5.2 times higher than these estimates.
- Depressive symptom prevalence is substantially higher among medical students than among individuals of similar age in the general population.

Trauma is ubiquitous!

Are we monitoring the level of trauma in our:

- Patients
- Their families
- Our students
- Housestaff
- Colleagues
- Treatment team members
- If not, why?

QUESTIONS or COMMENTS

- If you have any questions or comments about this learning module please feel free to contact Dr. Cheng at chengk@ohsu.edu.