Brain Injury Psychiatry Workshop

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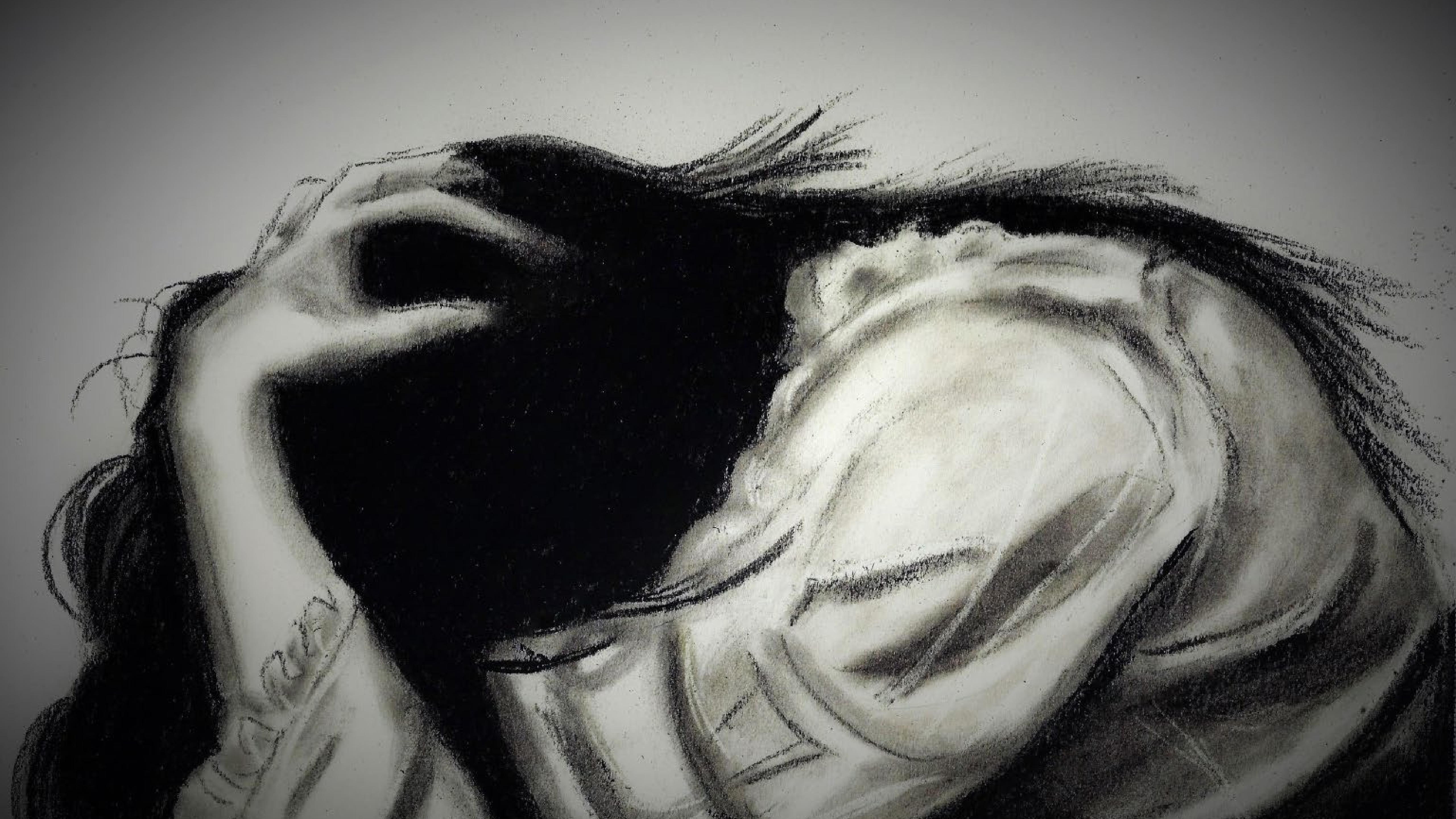
Anxiety and Depression

Anxiety and depression in TBI



“Fran”: anxiety and depression post TBI

- Fran is a 30 year old agricultural scientist, severely injured in a head in northwestern NSW 5 years ago. She lives with her partner Steve.
- She sustained a severe brain injury, perforated ileum, fractured C5 and C6 vertebrae as well as maxillofacial injuries and a fractured fibula. She spent four weeks at a large regional hospital and underwent burrhole surgery, then a further 10 weeks at a Brain Injury Unit. She continues to have a right homonymous hemianopia.
- After a long period of emotional numbness she is now beginning to feel things more often and particularly anxiety which can be quite paralysing at times. She has had experiences of waking up terrified on some days while other days are less concerning. She also suffers from initial insomnia, low energy, anhedonia and low mood. Recently her mood had become so low that she had begun actively considering a means of suicide and contacted Lifeline.

“Fran”: initial assessment continued

- She has a premorbid history of anxiety and depression and in fact made a suicide attempt of sorts at the age of 19 when she lay on some train tracks for a period of time and then later had contact with Lifeline.
- There is no other significant medical history. She has no allergies, is a non-smoker, rarely drinks alcohol and does not use drugs.
- She was raised in Sydney, the youngest of four children. Her father was a scientist and her mother is a secretary in an accounting firm. There were no developmental difficulties and she denies any traumas or stresses in childhood. She describes her childhood as pleasant and relaxed. She thinks he was a quiet and bookish child whose reserved manner caused difficulties at school, particularly in high school where she was in what she called the ‘outcasts group’ and experienced significant bullying. She was sufficiently affected by this to have a much poorer HSC result than she was expecting. She repeated her HSC at TAFE and studied science at university with honours, going on to complete a PhD about a year before her injury.

“Fran”: initial assessment continued

- She was on an SSRI antidepressant for about a year in 2009 when she developed some bothersome checking behaviour involving locks and doors to the point where she was having difficulty leaving the house. These mild OCD and depressive symptoms improved but after a year she stopped the escitalopram.
- Currently Fran is continuing to struggle with low mood. She said ‘I feel pointless’ and is frustrated that her brain is working less effectively than previously. She had difficulties giving an academic lecture recently and answering questions after it.
- She is seeing a clinical psychologist with extensive experience in brain injury approximately every three weeks.
- On mental state examination Fran was a slim woman with glasses who had a mildly anxious but cooperative manner. She required a little bit of support and redirection by Steve during the interview but generally did well. She scored 40 on a Centre for Epidemiologic Studies Depression Scale, consistent with a very significant depression and moderately on scales that measured anxiety and OCD symptoms.

“Fran”: initial assessment continued

- When first seen Fran was a young woman who has had a severe traumatic brain injury 18 months ago occurring against a background of high trait anxiety, OCD and recurrent depression. She now has symptoms of a major depressive disorder as well as generalised anxiety and intermittent OCD symptoms.
- My recommendations were that Fran continued to work closely with her psychologist and recommence escitalopram. I have spoken to Fran and Steve about how to manage escalating suicidality or severe low mood including how to contact the mental health extended hours team in a crisis.

“Fran”: subsequent developments

- Year one:
  - Initial improvement with SSRI and CBT. Declined online anxiety management module I had recommended.
  - Development of panic attacks up to 8x/week, SSRI increased in dose, improved
- Year two:
  - Psychologist sessions started to wind up
  - Fran began to describe feelings of numbness, detachment
  - “She tends to have a panic response to ordinary negative events during the day, followed by self blame and irrational thoughts”
  - Sitcom theme song began playing repeatedly in her head
  - Further engagement with psychologist recommended

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“Fran”: subsequent developments

- Year three:
  - Returned after five month gap markedly deteriorated. No obvious cause. Markedly depressed with feelings of despair, pointlessness.
  - SSRI increased further, re-referred to clinical psychologist
  - Improvement when reviewed next
  - Recurrent feelings of being overwhelmed, occasional panic attacks still.
  - Unexpected pregnancy, not recognised until week 14! Antenatal care hastily arranged.
  - Partner also experiencing anxiety, referred.
  - Seen by mental health team perinatally and by psychologist after baby’s birth.
- Year four:
  - Mood swings more severe. Feelings of hopelessness, thoughts of suicide, quite intense.
  - Emergence of postnatal depression, SSRI changed, olanzapine added.
  - Mood swings more extreme, more demands on psychologist.
  - Thoughts of self harm developing. Partner not sure he can continue to manage.
  - Currently on holiday: work in progress.

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"Fran": current thinking

- Brain injury very important factor, but there is more
- Postnatal depression
- Are anxiety symptoms just intensification of premorbid problems
- Emergence of trauma/personality symptoms (mood swigs, suicidality, threats against partner)
- Relationship issues
- Medication revised
- Regular liaison with clinical psychologist, OT, CM
- Consideration of MH admission or DBT group

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Antidepressants in TBI

- Widely used but some recent cautions.
- Two studies suggest that antidepressants may not improve depressive symptoms in TBI, and may actually worsen cognition.
- This doesn't really tally with clinical experience so more studies are needed.
- Other studies suggest they are beneficial and may help with cognition.
- Sertraline and es/citalopram most commonly used.

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Kreitzer, Natalie, et al. "The effect of antidepressants on depression after traumatic brain injury: a meta-analysis." *The Journal of head trauma rehabilitation* 34.3 (2019): E47-E54.

Failla, Michelle D., et al. "Effects of depression and antidepressant use on cognitive deficits and functional cognition following severe traumatic brain injury." *The Journal of head trauma rehabilitation* 31.6 (2016): E62.