

Complex Case

Head trauma, dissociation and possible development of multiple personalities

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Introduction

It is not unusual for individuals diagnosed with borderline personality disorder (BPD) to experience temporary disconnection from a situation that is emotionally painful. Such disconnections can include lapses in reality testing such as dissociation, depersonalization, derealization and paranoid or confused thinking (American Psychiatric Association, 2000). When a patient who has BPD is in a state of turmoil due to psychosocial crisis, it is usually not difficult to pinpoint the specific stressor(s) that precipitated regression and/or transient dissociative symptoms.

But when a BPD patient sustains head trauma, the sequelae of traumatic brain injury (TBI) can complicate or confound the ability to determine the aetiology of the patient's emotional disconnects and dissociative episodes (Gagnon, Bouchard, & Rainville, 2006). There is a broad spectrum of TBI symptoms that include problems with cognition (thinking, memory problems, attention deficits and reasoning), communication (expression and understanding) and behaviour or mental health symptoms (mood swings, depression, anxiety, personality changes, frustration and aggression, acting out and social inappropriate-

ness.) Some of these TBI symptoms manifest in a manner that look identical to, or can closely mimic, BPD symptoms (van Reekum, Conway, Gansler, White, & Bachman, 1993). When BPD and a TBI coexist, symptoms overlap and the clinician is faced with a complex clinical picture.

This case report demonstrates the challenge in trying to sort out whether BPD or TBI is the major contributor to the patient's symptomatology and presentation. The patient described here carried a previous, long-standing diagnosis of BPD, then sustained a closed-head injury and subsequently developed symptoms that did not exist or manifest prior to the TBI.

Case report

Referral

Ms C was a 50-year-old divorced female who was employed for 3 years as an office manager in a large, professional office. She was injured at work when she uncharacteristically became dizzy and light-headed, and fell and hit her head on a wooden desk. No one witnessed her fall, but a co-worker found her lying unconscious shortly after. Ms C regained consciousness when paramedics arrived.

In the emergency department, a computed tomography (CT) brain scan revealed no acute changes or bleeding. She was admitted to an observation unit and experienced nausea, vomiting, vertigo and diplopia, and developed chronic severe head pain that was different from her admission headache. A repeat CT brain scan was unremarkable. Neurology consultation suggested that the diplopia would be self-limiting. She received supportive care with intravenous fluids, phenergan, meclizine and oxycodone as needed for pain. On the third day, she was discharged in stable condition with some improvement in headache and vision. Diagnosis was mild TBI with post-concussive syndrome.

Ms C was placed on paid medical leave from work due to daily severe post-concussive right frontal headaches, vertigo and diplopia that had changed in nature from horizontal to vertical. She participated in 3 months of physical therapy for shoulder and knee rehabilitation and strengthening. She voiced eagerness to resume her work schedule as soon as possible while simultaneously expressing concern that her unremitting headaches might preclude doing so.

During the 3 months following her injury, health care providers intermittently noted unusual mental status changes that often presented as amnesic. Although Ms C remained alert, she exhibited temporary periods of disrupted identity, memory loss and altered perception of self and the environment. At times, she was not oriented to the year and/or place, and did not recognize people she knew well, including her primary care physician, his office staff and her neighbours. In one episode, Ms C stated that the year was 11 years earlier than the actual year, and she did not recognize her son nor recall current events of her life, including her mother's recent move to a nursing home, or her own accident at work. She believed that her children were 11 years younger than their actual age, and she shared personal accounts of events that had actually occurred 11 years earlier. She stated that she did not remember owning pets, that she did not recognize the animals in her house and that 'fortunately (she) found some written

instructions on how to feed and care for them'. She expressed surprise and pleasure that cars had remote-control locking devices so that she did not have to use a key. Briefly and intermittently, during the midst of these episodes, she would often speak in a plaintive, childlike voice and sometimes spoke using regressed baby talk. All of the above symptoms were new since her accident and were episodic, lasting anywhere from a few hours to more than 1 week in duration.

Her primary care physician became alarmed when he witnessed one of these episodes, and Ms C was readmitted to a medical unit for further observation and tests. A third CT brain scan once again found no abnormality, and neurological evaluation found no physiological cause for her altered mental status. After her medications were reviewed and determined to be non-contributory to these symptoms and behaviours, her primary care physician and case manager both suspected a psychiatric rather than a toxic metabolic cause for her episodes. She denied both depressive symptoms and suicidal ideation, despite long-standing history of both. It was at this time that her primary care physician and worker's compensation case manager referred Ms C to me for psychiatric evaluation and treatment.

Past psychiatric history

Ms C had been diagnosed throughout her adulthood with recurrent major depressive disorder and BPD. She reported her first episode of depression at age 4, a second at age 13 and multiple subsequent depressive episodes throughout her adult life. Her first psychiatric hospitalization was at age 24, followed by numerous admissions over ensuing years, with each hospitalization precipitated by suicidal ideation and/or attempt. She had a considerable amount of exposure to outpatient psychotherapy beginning at age 21, with a pattern of abruptly terminating each treatment due to disappointment with or anger at the therapist. The longest treatment relationship that she could recall was approximately 1 year. Multiple trials of various

antidepressant medications were prescribed over the years, and Ms C usually had impulsively quit taking them because she felt hopeless about her future and believed that she did not deserve to feel happy.

Ms C was referred to see me for psychotherapy 5 years before her current referral and before the fall and head trauma. At that time, she had been repeatedly telling her two children that she was 'a horrible mother' and told them in great detail how she was planning her suicide and who she would arrange to care for them after her death. Her 15-year-old son consequently became profoundly depressed and was psychiatrically hospitalized. Ms C was urged to resume therapy of her own. She felt responsible for and ashamed of her son's need for hospitalization, and extensively cut her feet and thighs. She then accepted the referral to see me because she had 'failed as a mother and deserved to be punished'.

Ms C remained ambivalent throughout our first treatment, often presenting in a provocative or hostile manner. We met for 10 sessions over 3 months, and Ms C never fully engaged with me. I never witnessed, and her records from other clinicians never documented, evidence or history of psychosis, dissociative episodes or multiple personalities. She ultimately explained that she needed to quit therapy because she 'wasn't worth spending any money on' and she wanted to dedicate all of her financial resources to her children. In the 5-year period before her current referral, Ms C had two psychiatric admissions (one involuntary), and she subsequently met briefly with two different therapists when her primary care physician insisted that she address and treat her depression symptoms and ongoing suicidality.

Personal and family history

Ms C was the third child in a sibship of six who grew up in a rural area. Her father was a factory labourer and was described as unpredictable, volatile, verbally abusive and intermittently physically abusive towards his wife and children. He encour-

aged physical violence between his children, finding it amusing and viewing it as a way of toughening them up for life. Ms C's mother was primarily a homemaker, but did some part-time work as a seamstress at a department store. Her mother was described as emotionally distant and critical of all of the children. Ms C was targeted for more of her mother's criticism and rejection, perhaps because Ms C physically resembled her paternal relatives. Ms C reported that she became a perfectionist to try to please her parents. She earned A's in school, and carefully completed every household chore as perfectly as possible in an attempt to avoid criticism from her mother and the unpredictable wrath of her father. She was consistently told that it was her fault when her parents got angry, and she felt that she was a continual disappointment to them. Her two older siblings frequently treated her as a scapegoat and routinely blamed her for all problems in the household. Ms C confided a suspicion that she was the victim of sexual abuse because she does not recall any childhood memories between the ages of 5 and 13 years old. Ms C was shy, had few friends and felt like an outsider throughout her school career. Social interactions have been difficult throughout her life, and she attributed this to her being 'a useless and unlikable fat slob who fails at everything'. Ms C graduated from high school with honours. She attended a community college and met her future husband in one of her classes. They dated for several months. He encouraged her to quit school so that they could get married. He beat her violently once before their marriage, but Ms C rationalized that it had been her fault because she made him angry. Her husband worked as the manager of an office supply store, and insisted that Ms C stay at home all day when he was at work. He was verbally abusive and frequently became violent in their home. Ms C wanted children, but her husband did not. She became pregnant four times. Her husband demanded that she abort her first pregnancy. In the first trimester of her second pregnancy, he beat her so severely that she miscarried and required medical intervention. She filed a police report, but

her husband held a knife to her throat and threatened to kill her if she did not drop the legal charges against him. She had a miscarriage during her third pregnancy, and when she became pregnant for the fourth time, she packed two suitcases and left her husband while he was at work. Her parents and siblings told her that she 'she had made her bed and now had to lie in it', and refused to help her with shelter or money.

After her son was born, she filed for divorce, and neither she nor her son has had contact with her ex-husband over the ensuing years. She was 'always extremely close' to her son, and since he was in elementary school, she has viewed him as 'someone who she could always talk to about anything'. Two years after her divorce, she was introduced to a man by a co-worker, and they began a relationship that Ms C describes as 'very unhealthy'. She became pregnant, and shortly after delivering a son who was diagnosed with cerebral palsy, the relationship ended. She and her son received no financial support nor had any contact with him over the years.

Ms C was employed in a series of clerical-financial jobs. She found it overwhelming to work full time while being a single parent of two young children, one of whom had special care needs. When her son was 2 years old, Ms. C released him to a foster care home because she thought that her son would receive better care and more attention than she could provide. Making this decision was wrenching for Ms C, and precipitated a major depressive episode and a suicide attempt by medication overdose combined with carbon monoxide poisoning. Ms C tried to bring her son back home to live with her when her son was 5 years old, and again when he was 9 years old. In both instances, after a few months, Ms C was overwhelmed with her son's needs and care, and returned him to a foster care situation.

Course of treatment

At our initial session of treatment that began after the head trauma, Ms C's appearance and presenta-

tion were appropriate and she was fully engaged. She said that she 'wanted her life back', and cried as she stated that it seemed as if she was 'living someone else's life and couldn't remember many things'. She explained how distressing it was 'to relive getting bad news over and over again' when her amnesic memory problems made her unable to remember upsetting past information. She lamented that she had not yet been able to return to her job because of daily disabling headache pain and ongoing diplopia. She expressed concern that the longer she was away from her job, the more likely it would be that she'd be seen as dispensable at the office. She worried that upcoming neuropsychological testing would be biased towards her not being able to return to work because of her psychiatric history. Several years earlier, she had briefly met the neuropsychologist once in a social situation, and suspected that he 'hated her', and that he would want to portray her in a negative manner. Ms C was taking prescribed 125 mg amitriptyline for depression and headaches, 5–10 mg oxycodone every 6–8 hours for headache pain and 25 mg meclizine twice daily for vertigo. She had no overt depressive symptoms and denied suicidal ideation.

We met weekly, using a dialectical behaviour therapy (DBT)-informed treatment approach focused on stabilization and on implementing coping skills in preparation for her return to her job. Acceptance of her current situation and making choices regarding what would make her life more enjoyable and satisfying were frequently discussed. She continually pointed out that she was worthless and hopeless and that nothing in her life ever worked out favourably. She found nothing pleasurable and blamed this on her headache pain and her experience that if she felt any happiness, it would immediately be snatched away from her.

I recommended a part-time return to her job, and she was agreeable although expressed doubt about whether she would be able to work due to the constant stabbing right frontal head pain that worsened with any movement. She also worried that her memory lapses and dissociation would

cause her to forget to go to work, forget how to do her job tasks or, perhaps, even forget that she had a job. Her employer rejected a part-time return to work, and said that she could not return until she could work a full-time schedule with no restrictions.

Her neuropsychological evaluation addressed her functional status and whether thrombotic brain injury or psychiatric issues were factors that would prohibit her success at work. Ms C's unusual array of symptoms along with the considerable fluctuation in her presentation and self-report were examined. Test results reflected psychological distress, inconsistent performance and evidence of intentional exaggeration on certain but not all tests sensitive to disingenuous responses. There were no cognitive contraindications to return to full-time employment, but testing indicated an exaggeration of somatic complaints, defensiveness and some feigning. These were all attributed to overcompensation for feelings of inadequacy. Her long history of resistance to psychiatric intervention, refusal to engage in treatment over an extended period of time, frequent and wilful discontinuation of medication, lack of psychological insight and history of limited benefit from psychotherapy suggested on the neurological evaluation that her mental health presentation was the biggest obstacle for Ms C's return to full-time employment. Her overall pattern of performance throughout the testing was deemed typical for patients with BPD. It was felt that if she did suffer TBI, the existence of any sequelae was masked by her emotional state, and that her emotional state was related to her life history and not to the slip and fall accident.

Ms C and I continued to meet weekly, but I never knew what kind of presentation to expect when we met. At times, she would walk with me to my office in a sullen, deliberate and protracted manner, while at other times, she would be sprightly and animated. Sometimes, she would appear to be asleep in the waiting area, and would require me to awaken her. She often wore mirrored sunglasses throughout the session so that I could

not see her eyes. She explained, 'I don't want you to look at me. You'll see too much, and I'm ugly'. Sometimes, she would willingly engage in the session, and sometimes she would sit mute. On some occasions with no identifiable precipitant, she spoke in a plaintive, regressed manner with a childlike cadence for a portion of the session. For example, 'Little Ms C doesn't like you dressed up fancy', and 'I like the dots on your carpet' and 'What do you call that thing?' as she pointed at the computer monitor. It also was not unusual for her to speak in the third person. For example, 'We don't like you to look at us', or 'We want you to speak to our supervisor'. On several occasions, I questioned Ms C about the existence or her awareness of distinct personalities, or alters, that took control of her and caused deficits in her recall of information. During or within a few hours after sessions in which I questioned this possibility, Ms C would become agitated and volatile. She accused me of trying to make her situation worse than it already was, and threatened not to return to my office. Her mood was labile throughout all of our sessions and she would alternately be cooperative and provocative. She would regularly tell me that she did not remember who I was or why she was in my office, and that she had only come because she had found a detailed note at home that included specific driving instructions that said she was 'supposed to be here'. Sometimes, she would be oriented to month and day, but not to year. When this occurred, she spoke about events as they were in a bygone year. For example, that she was still married and that her abusive husband would be very angry at her for talking to me. She worried that she must get back to their apartment as soon as possible so he would not know that she had gone out. During the sessions that she was not oriented to the current year, she was consistent as she discussed events and relationships as they were in that bygone year, but she remained able to locate, drive to and care for her current home, navigate stores and shopping centres that had not yet been built in the bygone year, recognized and interacted with her current friends and acquaintances, was

able to use a cell phone and successfully used other technologically complex items that were non-existent in the year that she professed it to be.

Ms C speculated that, perhaps, she had early onset Alzheimer's disease, blamed her accident for the onset of these episodes and thought that they were fully responsible for her inability to return to her job. She expressed concern that if she even remembered that she had a job, that her dissociation would make it impossible for her to remember what her job tasks and duties were and that she would not know how to operate the computer, the complex phone system or other technologically advanced equipment in her office.

Despite her concerns, after 3 months of weekly therapy sessions, a plan was made for Ms C to return to her job. As the date of her return to work approached, she became increasingly anxious and experienced panic symptoms. She complained of constant piercing headache pain. She experienced an increase in dissociative episodes. The night before she was to report to work, her supervisor called and said that she should not come in the next day. She was informed of a mandatory meeting, 2 weeks away, in which her supervisors and personnel staff wanted to discuss her past job performance. Ms C expressed shock and anger. She complained that no one at her office liked her and that they looked for things to criticize her for. Her mood became depressed and she stated that she 'didn't care about anything anymore'. She would not divulge whether she had suicidal intent because she did not want to be involuntarily hospitalized, but passively alluded to her 'need to get everything in order' and asserted that she would not attend the scheduled meeting. She repeatedly rejected the option of using DBT mindfulness and distress tolerance skills to reduce her level of suffering. One week before the scheduled meeting, she asked if I would accompany her to it. After discussion, I agreed. She immediately began to speak in the regressed, childish manner stating, 'Good. If you're there, they won't be mean to little Ms C'. She was highly anxious and experienced panic symptoms as the meeting date approached.

At the meeting, Ms C was told that her past job performance had been unacceptable, although her annual performance reviews contained no specific documentation of that. Numerous specific examples were provided of situations in which Ms C's behaviour at work was deemed as provocative, passive aggressive or inappropriate. Although I encouraged Ms C to refrain from making an impulsive, emotional decision, before the meeting ended, she quit her job.

In the ensuing years, Ms C has been unsuccessful in securing permanent employment, and her dissociative symptoms have remained undeviating.

Discussion

It is difficult to distinguish organically based symptoms from emotional symptoms. The great benefit of diagnosis is in being able to consequently identify and develop an appropriate and effective treatment plan. A sound medical diagnosis illuminates aetiology and pathophysiology, and consequently, specific and effective treatment can be identified and implemented. However, trying to appreciate the various contributions that result in certain behaviours that can culminate in a psychiatric diagnosis is never simple and often remains unclear. Identifying the best or most effective treatment is typically a subjective decision made by the clinician, and evaluating the effectiveness of any treatment occurs gradually over a period of time.

Ms C's TBI medical diagnosis is clear enough, and her psychiatric diagnoses of recurrent major depression and BPD were substantiated and agreed upon between numerous clinicians over 25 years, even before the slip and fall accident. But how do her medical and psychiatric symptoms overlap? We do know that psychiatric illness after TBI has been shown to be prevalent (Gagnon et al., 2006), with up to 23% of those patients diagnosed with personality disorders (Ruocco & Swirsky-Sacchetti, 2007). This is further reinforced by data that reveal that persons with mild TBI and prior psychiatric

illness continue to have evidence of persisting psychiatric illness (Fann et al., 2004). And we who work with patients with personality disorders would suspect that these personality traits and behaviours might become even more entrenched after a traumatic brain event.

Questions for the discussants

Although this case generates many questions, the ones that I wish to raise here are as follows:

- (1) Regarding diagnosis, how can it best be determined and understood? Is the diagnosis of dissociative identity disorder fitting and accurate in explaining Ms C's unusual presentation and dissociative episodes, or is the diagnosis of personality change due to head injury more appropriate? Is she malingering, or has there simply been an amplification of her BPD symptoms manifested due to stress?
- (2) How should her dissociative episodes be viewed and understood? When considering a treatment approach, does it matter whether the dissociative episodes are brought about by head trauma vs. being connected to personality configuration?
- (3) Ms C adamantly held that her post-concussive headache pain never abated and was disabling enough to interfere with her ability to work. There was no neurological abnormality found, and it was impossible to either substantiate or refute Ms C's subjective report. How should the clinician understand and address this significant symptom and its accompanying problems?
- (4) A DBT-informed treatment approach was utilized with Ms C. Are there other approaches or interventions that may have been more effective?
- (5) Should there be periodic or ongoing medical explorations to determine whether Ms C's symptoms are linked to or related to her head trauma?

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