

Leena Prasad

THE POLARITY OF WHITE MATTER

Bipolar Disorder explained within the flow of the lives of fictional characters and real people

Sanjay has disappeared suddenly and his wife Gita is feeling anxious. He has sent an email to say that he is okay and will call her soon. She has not seen him for almost twenty hours. She calls up Sanjay's sister Sonia to try to understand what is going on with him.

Gita and Sonia are in the kitchen in Sonia's apartment. It is early evening and an occasional bird chirp punctures the quiet of the kitchen. Gita is sitting on a chair with her feet up on the chair, knees bent, and her face buried in her knees. Sonia is measuring sugar and flour and it looks like she's planning to bake something.

Sonia: *He is much better than he used to be.*

They are both quiet for a while. Gita wonders if he is still in the city? Where could he have gone? He didn't even tell his sister! She needs to better understand his manic depression. It's the only way she can calm her mind.

Gita: *I want a scientific explanation. I need to know the mechanics.*

Sonia: *There's a lot of evidence that bipolar disorder is genetic.*

Gita: *What do you mean bipolar? I thought he is manic-depressive!*

Sonia: *It's the same thing.*

Gita: *Well, you don't have it and neither does anyone in your family.*

How did he get it?

Sonia: *As far as I know nobody in our family has it. But, it's not the kind of thing that Indian families advertise you know.*

There is a mix of dough in a bowl in front of Sonia. She adds chocolate chips to it.

Gita: (frowns) *Maybe it has to do with living in America.*

Sonia: *Hmmm ... United States has the highest percentage of bipolar disorders and India has the lowest.*

Gita: *So, it does have something to do with the environment?*

Sonia: *I don't think so. I think Americans are willing to acknowledge that they have it and Indians are unwilling to acknowledge they do. So, it's difficult to know its genetic predisposition in India. It's possible that there are environment components also but knowledge about this disorder is still limited.*

Gita: *Where in the brain is it located?*

Sonia: *Well, I have read that some people with bipolar disorder have smaller white matter.*

Gita: *What? I've heard of grey matter but what's white matter?*

Sonia wipes her hands and goes out into the living room. She comes back with a 12 inch high model of a brain. She lifts up the top part, apparently attached with a hinge and extending from just above the eye to the back of the head. She points to some squiggly grey stuff.

Sonia: *See the squiggly grey stuff and see how it's surrounding some white stuff?*

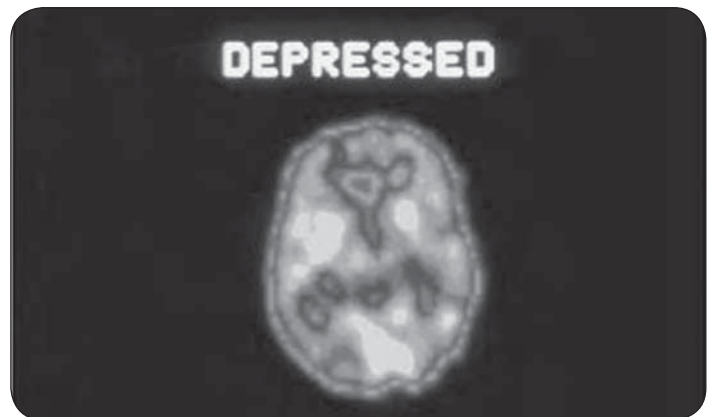
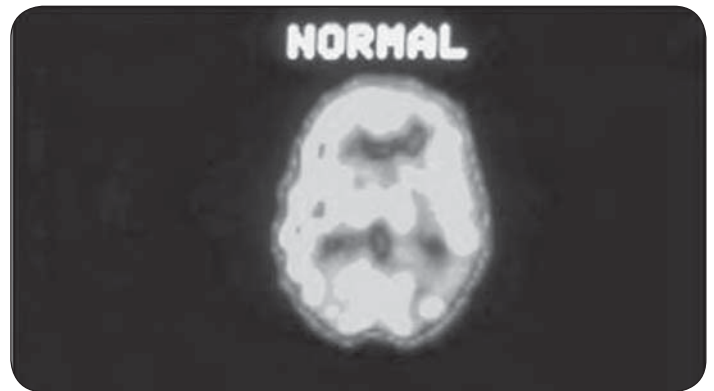
Gita: *Is the smaller white matter the only issue?*

Sonia: *Well, it's a pretty big issue, so to speak.*

Gita laughs. Then she starts to cry. She wipes off her tears with a napkin from the table.

Gita: *Damn, I'm acting bipolar now.*

Sonia: *It's not that simple. Well, I mean it is a little like that but*



someone with BD goes through extreme phases that can last for many days.

Gita: *Yeah, I know. So, what does it mean to have smaller white matter and how can that be cured with medication?*

Sonia uses two large spoons to scoop out the dough and to make little cookie circles with the dough on a cookie sheet.

Sonia: *The white matter manages communication within the brain. I don't know exactly how it is related to BD and I don't think there is a cure. But some cases of the disorder can be "managed."*

Gita: *With drugs? How much can be managed?*

(pause) *Sanjay still hasn't called!*

Gita pulls out her cell phone and looks at it. Sonia cleans her hands and goes out to grab her cell phone and views the incoming calls list

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also.

Gita: *Can we look for him somewhere?*

Sonia: *He has disappeared before. It's not possible to find him but he'll show up within a few days. He will be alright. He just needs time alone.*

Gita: (sighs) *I feel helpless.*

Sonia: *I know. It's hard. But you really just have to wait.*

Gita: *Ok. Tell me how the medicine helps the white matter?*

Sonia: *I don't know exactly. But Sanjay takes lithium and other medications and he's usually alright.*

Sonia adds some of the leftover cookie dough to the white matter in the brain. Gita touches the dough on the brain sculpture.

Gita: *So, it's fixable.*

Sonia: *Lithium works for some people and doesn't for others. Neurobiologists don't understand the exact neuropathy of bipolar disorder yet.*

Gita: *But the lithium works for Sanjay?*

Sonia: *Yes, yes, it does.*

They stare at the brain sculpture. Sonia opens the oven and puts the cookies on a plate.

Sonia: *He loves these. They always seem to calm him.*

Gita: *Let's hope he is thinking of us and will call soon.*

A Chronic Condition

The volume of white matter in the brain, as referenced by Sonia in this fictional dialogue, is just one of the issues that can cause bipolar disorder (BD). A study conducted on identical and fraternal twins found that the thickness of other parts of the brain is also a factor. The results of this research, published in the Archives of General Psychiatry, establish a strong likelihood that this is a congenital disorder.

The severity levels of bipolar disorder vary from person to person. In worst case scenarios, people with this disorder try to commit suicide. Given that Sonia is not panicking over Sanjay's disappearance, it's likely that her brother's is a milder case and that she is familiar with the risks involved and therefore does not panic. A study in the Archives of General Psychiatry notes that 20-25% of people with BD attempt suicide. Most cases of BD can be managed with medication but currently there is no permanent cure. Similar to many chronic diseases, treatment is long-term, i.e., most likely to last throughout the person's life.

Under the Influence of Drugs

As in the case of Sanjay, lithium is one of the common drugs used to manage BD but other similar drugs might also be used. In addition, a cocktail of mood-stabilizers are prescribed because people with bipolar-disorder often exhibit other personality disorders. In addition to drugs, many lifestyle factors are helpful. For example, a strong support system of family and friends is significant for the well-being of a person with BD. A support group of other people with the disorder can be valuable in not only finding kindred souls but also in learning how to cope with the disorder. Maintaining healthy eating, sleeping, and exercise habits are especially important for a person with this disorder as they are more vulnerable than others to stress.

It can be challenging for family members to live with and support a person suffering from BD. They should learn as much as possible

about the disorder itself and about the trigger mechanisms. Family and friends will need to commit to being understanding and patient and learn to communicate better. In our story, it appears that Sonia has put a lot of work into learning about the disorder and has a good sense of her brother's behavioral patterns.

The South Asian Context

The cultural context of a person with BD makes a significant role in the quality of his/her life. The independent film "Hiding Divya", written and directed by Rehana Mirza and starring Madhur Jaffrey, Pooja Kumar and Deep Katdare helps de-stigmatize BD, increases awareness and attempts to educate the community. The story illustrates the constant erratic nature of the disease and the South Asian prevailing attitudes towards individuals who suffer from BD. "We realized there was an immediate need to tell this story," explains Mirza.

There is a plethora of data available on the internet about bipolar disorder. It is important to pay more attention to peer reviewed scientific journals as they contain more accurate information. There are also personal notes by South Asians who feel ostracized by their community and are looking for support groups.

Symptoms for bipolar disorder may appear during the adolescent years or during the early adulthood years but sometimes show up later. For example, the newscaster Jane Pauley noted symptoms after the age of 50. There's speculation that Vincent Van Gogh and Ernest Hemingway might have had this disorder. Actors Catherine Zeta-Jones and Jean Claude Van Dam are other examples of successful people who have this disorder.

Although bipolar disorder can create an extra set of challenges in a person's life, it is possible to lead a healthy and happy life by taking advantage of the drug and lifestyle choices that can be made to maintain a healthy balance of brain activities. ■

Leena is a software analyst/programmer during the day and a writer, artist, iOS developer at night. She lives in San Francisco and her writing portfolio can be seen at FishRidingABike.com

Helpful Resources:

- Prevalence and Correlates of Bipolar Spectrum Disorder in the World Mental Health Survey Initiative, Archives of General Psychiatry, March 2011
- Overlapping and Segregating Structural Brain Abnormalities in Twins With Schizophrenia or Bipolar Disorder, Archives of General Psychiatry, April 2012
- Counselors Helping South Asians/ Indians: <http://www.chaicounselors.org/resources/articles>
- Helping a Loved One with Bipolar Disorder, HelpGuide.org, http://www.helpguide.org/mental/bipolar_disorder_family_friends_support.htm
- *Hiding Divya*, written and directed by Rehana Mirza, produced by Rohi Mirza Pandya <http://www.pendulum.org/bpnews/archive/001866.html>.