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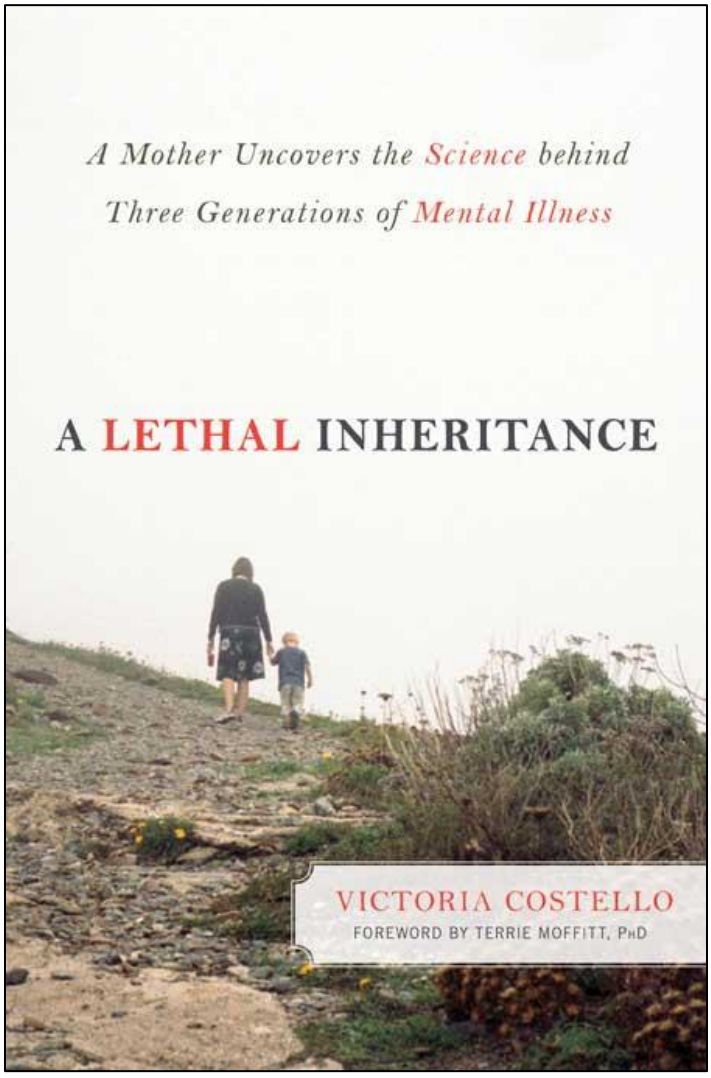
# A Family Tree Filled with Mental Illness

Review: *A Lethal Inheritance: A Mother Uncovers the Science Behind Three Generations of Mental Illness* by Victoria Costello

Reviewed by Dean F. MacKinnon, M.D.

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I began my career as an academic psychiatrist 20 years ago by joining the search for a gene for bipolar disorder. Hopes were still very high that somewhere out there we would find a family or two or a dozen in which a scrap of variant DNA could be traced from one affected individual to all of his or her affected relatives. Step one was to collect families, hundreds of them, the more the better, and encode the information about who had what and who begat whom into pedigree diagrams. To study these pedigrees was to move from knowledge about psychiatric epidemiology over an abstract population toward a vivid portrait of the human cost of mental illness on a real family.

We have gotten away from that kind of work, mainly because the technology to study DNA has advanced at least as swiftly as computer technology. Remember when it cost thousands of dollars to buy a slow, suitcase-sized desktop computer that could do far less than today's disposable cell phone? Genetics has gone through the same sort of evolution. Now that we can afford to comb through the DNA of tens of thousands of individuals, we can no longer afford to conduct detailed interviews with all of them and their family members, the way we once did with the more manageable number of individuals in multigenerational pedigrees. And so, to an old-fashioned family geneticist, psychology and health author Victoria Costello's description of her family tree in her book *A Lethal Inheritance* brings back those simpler times when we were as interested in phenotypes—the nature and varieties of the way an illness presents itself—as we were in genotypes.

Ms. Costello's family tree, as she describes it in the book, appears below, drawn as a pedigree diagram. She devotes chapters to each of the individuals identified by name. Psychiatric geneticists used to study a lot of these diagrams, studded with darkened circles that indicated a mother or daughter or sister with bipolar disorder or schizophrenia, or a patterned square that indicated a father or son or brother with some related disorder like major depression or substance abuse, a slash to indicate a premature death, or an X to indicate a suicide. For a geneticist, the significance of a familial relationship rests in shared traits and how much DNA the two relatives have in common. But for a physician or any other student of human nature, to look beyond the symbols is to wonder: how does the mother/daughter/sister at the center of the picture experience the suffering in so many of her loved ones?

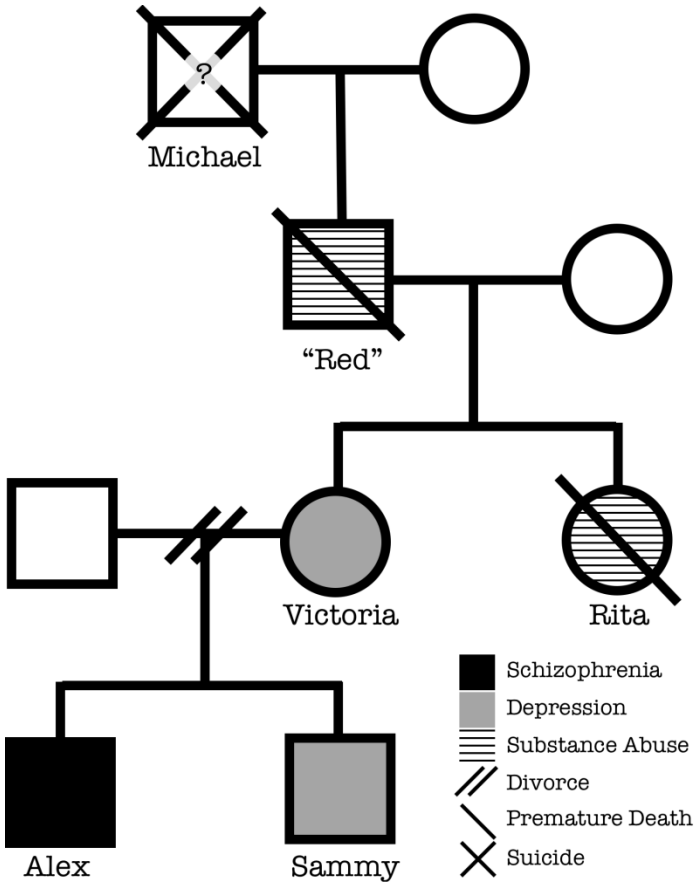


Diagram by Dean F. MacKinnon

Ms. Costello's stories about her encounters with mental illness in her sons, sister, father, grandfather, and herself offer just this kind of insight. The story begins in the late 1990s, with the catastrophic psychotic break into schizophrenia suffered by Alex, the older of her two sons. She traces his illness and her maternal anguish through the winding path from denial to advocacy for her son's psychiatric care to acceptance of the limited role she could play in influencing his choices. Along the way, she takes careful note of the high and low points in his condition and in her impressions of the system of psychiatric care with which she is forced to become intimately involved.

It turns out Ms. Costello was familiar with the painful and tragic consequences of mental illness long before Alex's troubles began. She had heard family legends of her grandfather's mysterious, violent death on the railroad tracks, had seen her alcoholic father die of cancer at a young age and her sister die from complications of long-term, incorrigible drug abuse, and she had weathered her own suicidal depression with the help

of antidepressant medications. These experiences could not, of course, prepare her adequately for the tribulations of her son's psychosis, but they clearly gave her a perspective that allowed her to observe, note, and report for the reader's benefit the many twists and turns in her son's story. Despite a few run-ins with less-than-stellar practitioners, she remains refreshingly balanced in her analysis of the good, the bad, and the indifferent in her clinical encounters as patient and as family member.

In the last third of the book she embarks on a different kind of investigation, in which she attempts to ferret out the legend about her grandfather's death. It is a compelling tale, although her persistence is rewarded with a result that serves only to compound the mystery.

The personal tales of Ms. Costello's family constitute only one of the two major agendas of the book. Her other aim is to use these stories as a framework for her explorations into our state of knowledge about the causes, nature, and treatment of a variety of mental disorders. She seeds the book through and through with inserts and digressions that cogently summarize topics such as the common psychiatric disorders of childhood, the data on the link between antidepressants and adolescent suicides, psychotherapeutic approaches to schizophrenia, detection of and intervention for suicidal risk, and of course, the solid evidence for genetic factors in psychiatric disorder—which at this point is largely epidemiologic, based on old-school family, twin, and adoption studies.

In journalistic reviews of the scientific literature I always look out for the odd bit of pseudoscience or pop psychology that might undermine one's confidence in the author's understanding of the topic. Happily, I find that Ms. Costello's science and medical reporting, on topics both biological and clinical, is quite sound. Indeed, she not only avoids bad science, but she also avoids gushing overenthusiastically about the trendiest, most evanescent discoveries. I was consistently impressed with her scholarship and her way of making sense of science without resorting to jargon. She even goes the extra mile—late in the book she enrolls in a study on psychobiological markers of schizophrenia and describes the research process from the inside out.

There were a few relatively insignificant hiccups, of the sort where she identifies the drug venlafaxine (Effexor) as a selective serotonin reuptake inhibitor (SSRI) when it

is more properly called a serotonin-norepinephrine reuptake inhibitor (SNRI), and some distracting oddities of style, such as including a registered trademark ® symbol with brand names (in references to both medications and other items, like "Cadillac"). At one point she reports the prevalence of bipolar disorder as 2.2 percent, when a veteran of epidemiology would know that this is far too precise a measure and that it is more accurate to say the prevalence is on the order of 1–3 percent.

Writing, again, as someone with professional experience in both the scientific and the clinical aspects of psychiatry, I find this book to be a valuable contribution to the general literature about real people, their real experiences with mental illness and psychiatric care, and the knowledge we have accumulated about all of it.

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