

# THE OTHER SIDE OF MENTAL HEALTH SCIENCE

BY STEVEN MORGAN (stevenmorganjr@gmail.com)

---

Scientific studies about mental health are widely considered to be the ultimate source for objective information about psychiatric disorders. However, most people do not or cannot access these studies themselves. They instead rely on information from doctors, organizations, peers, the media, and so on. Unfortunately, this second-hand information is often oversimplified (i.e. “Mental illness is a chemical imbalance in the brain”), spoken with too much certainty (i.e. “Schizophrenia is a chronic brain disease that is lifelong and incurable”), or skewed and manipulated to justify an opinion (i.e. “People with Bipolar Disorder must take medication to live well”). As a result, popular myths now overshadow much of the data available from science.

The following list is a collection of facts from peer-reviewed scientific journals and several research-based books. Each source is hyperlinked in References, meaning the reader can literally click on the name of the study to access it from the Internet. Given the heated atmosphere of opinions about psychiatric disorders, the hyperlinks were included to make this document user-friendly so that readers can research the facts themselves.

---

## FACTS ABOUT PSYCHIATRIC DISORDERS

- i. A chemical imbalance for mental illness has never been found in anyone’s brain.<sup>1</sup> There is no way to measure the level of neurotransmitters in synapses between brain cells, so there is no measurement of a healthy chemical balance that would allow for comparisons of “too many chemicals” or “too few chemicals” to be made.<sup>2,3</sup> That is why our brains are not scanned for chemical imbalances when we are diagnosed. Even if chemical imbalances are one day found, it does not mean that they *cause* psychiatric disorders. Indeed, since the brain changes in response to both internal stimuli (thoughts, imagination, feelings, etc.) and external stimuli (sunlight, trauma, playing the piano, etc.),<sup>4,5</sup> a chemical imbalance could just as likely be a biological reflection of environmental, emotional, psychological, and spiritual stress as a primary cause of it. Finally, the idea that specific genes cause mental illness is inaccurate, leading one prominent genetic researcher to state in the American Journal of Psychiatry: “The impact of individual genes on risk for psychiatric illness is small, often nonspecific, and embedded in complex causal pathways... Although we may wish it to be true, we do not have and are not likely to ever discover ‘genes for’ psychiatric illness.”<sup>6</sup>
- ii. Long-term studies from around the world demonstrate that the majority of people diagnosed with major mental illness – including schizophrenia – significantly improve or completely recover over time.<sup>7,8,9,10,11,12</sup>
- iii. Adverse childhood events can lead to mental health problems in adulthood – including psychosis, bipolar affective symptoms, depression, borderline traits, and so on – and the

vast majority of people diagnosed with major psychiatric disorders have histories of trauma, neglect, or abuse.<sup>13,14,15,16,17,18,19,20,21,22,23</sup> Thus, in many cases, the *cause* of psychiatric symptoms is childhood trauma. In this context, saying “mental illness is just like diabetes” or “mental illness is a physical brain disease that is no one’s fault” is inaccurate. Consider this parallel: if I am stabbed by a knife, is my bleeding caused by weak skin, or is it caused by the knife, the stabber, and the surrounding circumstances? Linking the cause of psychiatric symptoms to the appropriate source – i.e. a traumatizing environment instead of one’s brain or genes – is crucial in determining an effective treatment path to recovery and in actually changing larger social, cultural, and familial problems that contribute to mental breakdown.<sup>24</sup>

- iv.* A large subset of people diagnosed with schizophrenia fare better with little or no medication usage.<sup>25,26,27</sup> Several alternative treatment models that use little or no medications for people experiencing psychosis have outcomes equal to or better than treatment-as-usual.<sup>28,29</sup> Also, antipsychotics are far less curative than generally acknowledged: in the most recent and largest ever study of antipsychotic efficacy for people diagnosed with schizophrenia, 74% of participants (1061 of 1432 people) quit taking their initially-assigned antipsychotic within 18 months, mainly due to ineffectiveness or intolerable side effects.<sup>30</sup> Of these unsatisfied participants, about half (509 people) dropped out of the study altogether, while the other half entered a second phase in which they tried a different antipsychotic. During the second phase, 44% of participants assigned to clozapine (20 of 45 people) and 75% of participants assigned to another antipsychotic (282 of 378 people) again discontinued it within 18 months.<sup>31,32</sup>
- v.* The brain can heal, and the biological abnormalities linked to psychiatric symptoms are often reversible or can be compensated for by other areas of the brain.<sup>33,34,35,36,37,38,39,40</sup> In other words, psychiatric recovery can happen on a biological level, both with and without medication usage.
- vi.* According to repeated studies by the World Health Organization, people diagnosed with schizophrenia living in developing countries have significantly better outcomes than those living in developed countries.<sup>41</sup> The WHO suggests the better outcome “...was unrelated to drug treatment since many in the developing world did not receive continuous treatment. Psychosocial factors, such as better family support, community tolerance, extended networks and more favorable job opportunities, have been postulated as the reasons for this observation.”<sup>42</sup>
- vii.* Antidepressant medications are no more effective than a sugar pill for people with mild to moderate depression, and only slightly more effective than a sugar pill for people with severe depression.<sup>43</sup>

- viii. Efforts to increase a person's awareness of their diagnosed mental illness – known as “illness insight” – may lead to self-stigmatization that decreases self-esteem and hope.<sup>44,45,46,47</sup> Research shows that the “mental illness is like any other physical disorder” message behind many anti-stigma campaigns actually increases the public's fear, prejudice, and desire for distance from people who are diagnosed.<sup>48</sup>
- ix. Psychiatric diagnoses are not based on medical testing, but instead on self-report and professional interpretation according to culturally-defined notions of disease. They are therefore arbitrary and often unreliable, especially over time, being prone to racism, sexism, classism, and Eurocentric bias. Many people receive different diagnoses from different doctors, which muddles treatment options and can lead to unnecessary or mismatched medication usage.<sup>49</sup>

---

## REFERENCES

- <sup>1</sup> Lacasse JR, Leo J. [The Media and the Chemical Imbalance Theory of Depression](#). *Society* 45(1):35-45, Feb 2008.
- <sup>2</sup> Lacasse JR, Leo J. [Serotonin and Depression: A Disconnect between the Advertisements and the Scientific Literature](#). *PLoS Medicine* 2(12), e392 doi:10.1371/journal.pmed.0020392, Nov 2005.
- <sup>3</sup> Breggin PR, Cohen D. [Your Drug May Be Your Problem: How and Why to Stop Taking Psychiatric Drugs](#). Philadelphia, PA: Da Capo Lifelong Books, 2007.
- <sup>4</sup> Doidge, N. [The Brain that Changes Itself: Stories of Personal Triumph from the Frontiers of Brain Science](#). New York, NY: Viking Adult, 2007.
- <sup>5</sup> Begley, S. [Train Your Mind, Change Your Brain: How a New Science Reveals Our Extraordinary Potential to Transform Ourselves](#). Ballantine Books, 2007.
- <sup>6</sup> Kendler KS. [“A gene for...”: The nature of gene action in psychiatric disorders](#). *Am J Psychiatry* 162:1243-1252, 2005.
- <sup>7</sup> Davidson L, Harding C, Spaniol L, (Eds.). [Recovery from severe mental illness: Research evidence and implications for practice](#). Boston, MA: Center for Psychiatric Rehabilitation, Boston University, 2005.
- <sup>8</sup> Harding CM, Brooks GW, Ashikaga T, et al. [The Vermont longitudinal study of persons with severe mental illness, I: methodology, study, sample, and overall status 32 years later](#). *Am J Psychiatry* 144:718-726, 1987b.
- <sup>9</sup> DeSisto MJ, Harding CM, Ashikaga T, et al. [The Maine and Vermont three-decade studies of serious mental illness, I: matched comparison of cross-sectional outcome](#). *Br J Psychiatry* 167:331-338, 1995a.
- <sup>10</sup> Huber G, Gross G, Schuttler R. [A long-term follow-up study of schizophrenia: psychiatric course of illness and prognosis](#). *Acta Psychiatr Scand* 52:49-57, 1975.
- <sup>11</sup> Ogawa K, Miya M, Watarai A, et al. [A long-term follow-up study of schizophrenia in Japan—with special reference to the course of social adjustment](#). *Br J Psychiatry* 151:758-765, 1987.
- <sup>12</sup> Ciompi, L. [Psyche and Schizophrenia](#). Cambridge, MA: Harvard U. Press, 1988.
- <sup>13</sup> Read J, van Os J, Morrison AP, Ross CA. [Childhood trauma, psychosis and schizophrenia: a literature review with theoretical and clinical implications](#). *Acta Psychiatr Scand* 112(5):330-50, Nov 2005.
- <sup>14</sup> Rosenberg SD, Lu W, Mueser KT, Jankowski MK, Cournos F. [Correlates of adverse childhood events among adults with schizophrenia spectrum disorders](#). *Psychiatric Services* 58(2):245-53, Feb 2007.

- 
- <sup>15</sup> Hammersley P, Dias A, Todd G, Bowen-Jones K, Reilly B, Bentall RP. [Childhood trauma and hallucinations in bipolar affective disorder: preliminary investigation](#). Br J Psychiatry 182:543-7, Jun 2003.
- <sup>16</sup> Garno JL, Goldberg JF, Ramirez PM, Ritzler BA. [Impact of childhood abuse on the clinical course of bipolar disorder](#). Br J Psychiatry 186:121-5, Feb 2005.
- <sup>17</sup> Morgan C, Fisher H. [Environment and schizophrenia: environmental factors in schizophrenia: childhood trauma -- a critical review](#). Schizophrenia Bulletin 33(1):3-10, Jan 2007. Epub Nov 14 2006.
- <sup>18</sup> Janssen I, Krabbendam L, Bak M, Hanssen M, Vollebergh W, de Graaf R, van Os J. [Childhood abuse as a risk factor for psychotic experiences](#). Acta Psychiatr Scand 109(1):38-45, Jan 2004.
- <sup>19</sup> Chapman DP, Whitfield CL, Felitti VJ, Dube SR, Edwards VJ, Anda RF. [Adverse childhood experiences and the risk of depressive disorders in adulthood](#). J Affect Disord 82(2):217-25, Oct 2004.
- <sup>20</sup> Herman JL, Perry JC, van der Kolk BA. [Childhood trauma in borderline personality disorder](#). Am J Psychiatry 146(4):490-5, Apr 1989.
- <sup>21</sup> Harkness KL, Monroe SM. [Childhood adversity and the endogenous versus nonendogenous distinction in women with major depression](#). Am J Psychiatry 159(3):387-93, Mar 2002.
- <sup>22</sup> Vythilingam M, Heim C, Newport J, Miller AH, Anderson E, Bronen R, Brummer M, Staib L, Vermetten E, Charney DS, Nemeroff CB, Bremner JD. [Childhood trauma associated with smaller hippocampal volume in women with major depression](#). Am J Psychiatry 159(12):2072-80, Dec 2002.
- <sup>23</sup> Edwards VJ, Holden GW, Felitti VJ, Anda RF. [Relationship between multiple forms of childhood maltreatment and adult mental health in community respondents: results from the adverse childhood experiences study](#). Am J Psychiatry 160(8):1453-60, Aug 2003.
- <sup>24</sup> Read J, Ross CA. [Psychological trauma and psychosis: another reason why people diagnosed schizophrenic must be offered psychological therapies](#). J Am Acad Psychoanal Dyn Psychiatry 31(1):247-68, Spring 2003.
- <sup>25</sup> Harrow M, Jobe T. [Factors involved in outcome and recovery in schizophrenia patients not on antipsychotic medications: a 15-year multifollow-up study](#). Journal of Nervous and Mental Disease 195(5):406-414, 2007.
- <sup>26</sup> Whitaker R. [The case against antipsychotic drugs: a 50-year record of doing more harm than good](#). Med Hypotheses 62(1):5-13, 2004.
- <sup>27</sup> Bola JR, Mosher LR. [At issue: predicting drug-free treatment response in acute psychosis from the Soteria project](#). Schizophr Bulletin 28(4):559-75, 2002.
- <sup>28</sup> Calton T, Ferriter M, Huband N, Spandler H. [A systematic review of the Soteria paradigm for the treatment of people diagnosed with schizophrenia](#). Schizophr Bulletin 34(1):181-92, Jan 2008. Epub Jun 14 2007.
- <sup>29</sup> Mosher LR, Hendrix V, Fort DC. [Soteria: Through Madness to Deliverance](#). Xlibris Corporation, 2004.
- <sup>30</sup> Lieberman JA, Stroup TS, McEvoy JP, Swartz MS, Rosenheck RA, Perkins DO, Keefe RS, Davis SM, Davis CE, Lebowitz BD, Severe J, Hsiao JK; CATIE Investigators. [Effectiveness of antipsychotic drugs in patients with chronic schizophrenia](#). N Engl J Med 353(12):1209-23, Sep 2005. Epub Sep 19 2005.
- <sup>31</sup> McEvoy JP, Lieberman JA, Stroup TS, Davis SM, Meltzer HY, Rosenheck RA, Swartz MS, Perkins DO, Keefe RS, Davis CE, Severe J, Hsiao JK; CATIE Investigators. [Effectiveness of clozapine versus olanzapine, quetiapine, and risperidone in patients with chronic schizophrenia who did not respond to prior atypical antipsychotic treatment](#). Am J Psychiatry 163(4):600-10, Apr 2006.
- <sup>32</sup> Stroup TS, Lieberman JA, McEvoy JP, Swartz MS, Davis SM, Rosenheck RA, Perkins DO, Keefe RS, Davis CE, Severe J, Hsiao JK; CATIE Investigators. [Effectiveness of olanzapine, quetiapine, risperidone, and ziprasidone in patients with chronic schizophrenia following discontinuation of a previous atypical antipsychotic](#). Am J Psychiatry 163(4):611-22, Apr 2006.
- <sup>33</sup> Morgan, S. [Rethinking the Potential of the Brain in Major Psychiatric Disorders](#). Retrieved July 6, 2008, from <http://www.mindfreedom.org/kb/diagnostics/rethinking-the-brain>

- 
- <sup>34</sup> Bernier PJ, Bedard A, Vinet J, Levesque M, Parent A. [Newly generated neurons in the amygdala and adjoining cortex of adult primates](#). Proc Natl Acad Sci USA 99(17):11464-9, Epub 2002 Aug
- <sup>35</sup> Draganski B, Gaser C, Busch V, Schuierer G, Bogdahn U, May A. [Neuroplasticity: changes in grey matter induced by training](#). Nature 427(6972):311-312, Jan 2004.
- <sup>36</sup> Merzenich, M. [Brain plasticity-based "cognitive training" elevates BDNF](#). Message posted to <http://merzenich.positscience.com/?p=35>, Apr 2007.
- <sup>37</sup> Bremner JD, Elzinga B, Schmahl C, Vermetten E. [Structural and functional plasticity of the human brain in posttraumatic stress disorder](#). Prog Brain Res 167:171-86, 2008.
- <sup>38</sup> Gould E, Graziano MSA, Gross C, Reeves AJ. [Neurogenesis in the Neocortex of Adult Primates](#). Science 286:548–552, 1999.
- <sup>39</sup> Bieling P, Goldapple K, Garson C, Kennedy S, Lau M, Mayberg H, Segal Z. [Modulation of Cortical-Limbic Pathways in Major Depression: Treatment-Specific Effects of Cognitive Behavior Therapy](#). Arch Gen Psychiatry 61:34-41, Jan 2004.
- <sup>40</sup> Schwartz, JM, Begley, S. [The Mind and the Brain: Neuroplasticity and the Power of Mental Force](#). New York, NY: Harper Perennial, 2003.
- <sup>41</sup> Jablensky A, Sartorius N, Ernberg G, Anker M, Korten A, Cooper JE, Day R, and Bertelsen A. [Schizophrenia: Manifestations, Incidence and Course in Different Cultures. A World Health Organization Ten-Country Study](#). Psychological Medicine Monograph Supplement 20. Cambridge: Cambridge University Press, 1992.
- <sup>42</sup> World Health Organization. [Schizophrenia: Youth's Greatest Disabler](#). Retrieved July 6, 2008, from [http://searo.who.int/en/Section1174/Section1199/Section1567/Section1827\\_8055.htm](http://searo.who.int/en/Section1174/Section1199/Section1567/Section1827_8055.htm)
- <sup>43</sup> Kirsch I, Deacon BJ, Huedo-Medina TB, Scoboria A, Moore TJ, Johnson BT. [Initial severity and antidepressant benefits: a meta-analysis of data submitted to the Food and Drug Administration](#). PLoS Medicine 5(2):e45, Feb 2008.
- <sup>44</sup> Lysaker PH, Roe D, Yanos PT. [Toward understanding the insight paradox: internalized stigma moderates the association between insight and social functioning, hope, and self-esteem among people with schizophrenia spectrum disorders](#). Schizophr Bulletin 33(1):192-9, Jan 2007. Epub Aug 7 2006.
- <sup>45</sup> Watson AC, Corrigan P, Larson JE, Sells M. [Self-stigma in people with mental illness](#). Schizophr Bulletin 33(6):1312-8, Nov 2007. Epub Jan 25 2007.
- <sup>46</sup> Link BG, Cullen FT, Struening E, Shrout PE, Dohrenwend BP. [A Modified Labeling Theory Approach to Mental Disorders: An Empirical Assessment](#). American Sociological Review 54(3): 400-423, Jun 1989.
- <sup>47</sup> Link BG, Struening EL, Neese-Todd S, Asmussen S, Phelan JC. [Stigma as a barrier to recovery: The consequences of stigma for the self-esteem of people with mental illnesses](#). Psychiatric Services 52(12):1621-6, Dec 2001.
- <sup>48</sup> Read J, Haslam N, Sayce L, Davies E. [Prejudice and schizophrenia: a review of the 'mental illness is an illness like any other' approach](#). Acta Psychiatr Scand 114(5):303-18, Nov 2006.
- <sup>49</sup> For a research-based and in-depth overview of the problems with subjective diagnosing, see *Chapters 3 & 4* of: Bentall, RP. [Madness Explained: Psychosis and Human Nature](#). London, England: Allen Lane, 2003.