

Updating the ‘serotonin hypothesis’: Mental illness is way more complex than a chemical imbalance

Almost as soon as it was floated in 1965 by Harvard psychiatrist Joseph Schildkraut, the serotonin hypothesis of [depression](#)—reduced and simplified by pharma marketing to the “chemical imbalance” theory of depression and [anxiety](#)—has been subject to critical research and found wanting.

The poor standing of the hypothesis in the scientific literature, however, barely dented its afterlife in textbooks, across clinical and treatment settings, and on mental health apps and websites. Nor has it dispelled the continued use of the phrase as “shorthand” between doctors and patients and in everyday settings, including for [quite different mental states and conditions](#).

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Jeffrey Lacasse and Jonathan Leo asked pointedly in *PLoS Medicine*, “Are the claims made in SSRI advertising congruent with the scientific evidence?”

...

The FDA had accepted aspirational language that the drugs “help to restore the brain’s chemical balance” and “bring serotonin levels closer to normal,” even though both claims were, and remain, scientifically meaningless.

“There is no such thing as a scientifically established correct ‘balance’ of serotonin,” Lacasse and Leo cautioned more than a decade ago, joining numerous other experts then and now. Additionally, both aspirational claims rest on a hypothesis that follow-up studies would end up contradicting repeatedly.

[**This is an excerpt. Read the original post here**](#)