

# Depression treatment needs overhaul

November 3 2017, by Tess Redgrave

---



Credit: CC0 Public Domain

The way depression is diagnosed and treated needs a major overhaul, say authors of a new review article in the scientific journal *Brain, Behavior, and Immunity*.

This is because current treatment of depression is ineffective and lacks a plausible, coherent theoretical basis, they claim.

A new theory for depression and its treatment is proposed in the article "Depression subtyping based on evolutionary psychiatry: Proximate mechanisms and ultimate functions," authored by Markus J. Rantala, from University of Turku in Finland; Severi Luoto, from the University of Auckland in New Zealand; Indrikis Krams from the University of Tartu in Estonia and University of Latvia; and Hasse Karlsson from the University of Turku.

"We argue that depression is not a single disease; it is a heterogeneous syndrome, with patients differing remarkably in symptom profile, pathophysiology and treatment responsiveness," says Severi Luoto, a PhD candidate in evolutionary psychology at the University of Auckland

"The evidence that [major depressive disorder](#) is a group of separate syndromes comes from the observations that patients not only have many hundreds of unique symptom profiles, but many of the symptoms often have opposite features such as insomnia or hypersomnia, or an increase or decrease in appetite," he says.

The review article classifies depressive episodes into 12 subtypes based on evolutionary psychiatry. Using an evolutionary lens, the authors have observed patterns in the existing literature that haven't been previously identified.

"With the help of the 12 depression subtypes, it will be easier to find more effective treatments for depression," says Adjunct Professor Rantala, a member of the Turku Brain and Mind Center in Finland.

"This is because the focus will be on treating the underlying reasons (triggers) of depression instead of merely focusing on the symptoms, which is how traditional psychiatry treats depression.

"We argue that the occurrence of symptoms (or patterns of symptoms) depends on the subtype of the [depressive episode](#). The particular

manifestation of depressive symptoms may have more to do with what triggered the depression (i.e. the proximate mechanisms) than the personality of the patient."

The 12 subtypes are induced by:

1. infection, in which sickness behaviour to combat pathogens and parasites may lead to symptoms such as loss of appetite, sleep disturbances, anhedonia, impaired concentration;
2. long-term stress which is known to activate the immune system, causing an increase in proinflammatory cytokine levels that influence mood;
3. loneliness;
4. traumatic experience;
5. hierarchy conflict where events such as unemployment, exclusion from a social group, bullying at school or professional hierarchy conflicts may trigger a depressive episode;
6. grief;
7. romantic rejection;
8. postpartum events which lead to depression in 10-15% of women;
9. the season, where Seasonal Affective Disorder (SAD) affects the individual at the same time each year;
10. chemicals such as alcohol and cocaine;
11. somatic diseases such as Alzheimer's, Parkinson's, migraine, epilepsy, stroke and traumatic brain injury; and
12. starvation which is known to reduce mood and, when prolonged, can lead to apathy and social withdrawal.

Using these 12 subtypes, the authors go on to ask: How does a certain depressive state benefit the organism – what "ultimate function" does it have? For example, starvation-induced depression can be an adaptation to save energy in order to increase the odds of surviving through a famine.

But not all proximate mechanisms that trigger depression end up producing adaptive responses.

For example short-term low mood is an adaptation to adverse life events in the majority of cases. However, Rantala and Luoto argue that an adaptive state of low mood may turn into pathological clinical depression when the patient's symptoms do not serve the purpose that natural selection has shaped them to serve.

"Chronic [clinical depression](#) is what we could call an evolutionary novelty that arises from a mismatch between our current environment and our ancestral environment," says Luoto.

He adds that major depressive disorder constitutes one of the leading causes of disability worldwide: "Modern lifestyles – including a sedentary lifestyle with a diet high in energy and low in micronutrients – increase susceptibility to inflammatory dysregulation and chronic stress. These in turn increase the amount of proinflammatory cytokines in peripheral blood, leading to low mood and sickness behaviours characteristic of depression.

"If a depressive episode appears to be a response to an adverse life event, clinicians should evaluate whether the symptoms are adaptive or whether the depression episode has exacerbated into pathological depression," says Rantala.

"Some depressive responses to adverse life circumstances can be beneficial to the patient," adds Luoto. "So understanding the psychological and physiological underpinnings of depression is important and might remove some of the stigma around it.

"Future depression treatments should employ an analysis of [symptom](#) patterns together with an in-depth interview and a blood test to reveal

inflammation and stress hormone levels."

The review article further argues that subtyping depression episodes based on the original triggers of the mood change will help to find the best customised interventions for each patient. For example, in the case of depression induced by chronic stress, "interventions should seek to reduce stress levels either by using cognitive psychotherapy, exercise or medication that alleviates stress. Depression induced by loneliness in which [stress hormone levels](#) are elevated should focus on reducing loneliness, thus alleviating the stress."

"The focus of a treatment regime based on evolutionary psychiatry focuses on an individual's long-term mental and physical well-being instead of myopically fixating on the short-term alleviation of symptoms," say the authors.

They conclude by stating their hope that "the present subtyping based on an evolutionary and immunological approach to depression will prove its practical utility on a vast scale, helping to develop more effective therapeutic treatments and drugs that are targeted to the specific subtypes of [depression](#)."

**More information:** Markus J. Rantala et al. Depression subtyping based on evolutionary psychiatry: Proximate mechanisms and ultimate functions, *Brain, Behavior, and Immunity* (2017). [DOI: 10.1016/j.bbi.2017.10.012](#)

Provided by University of Auckland

Citation: Depression treatment needs overhaul (2017, November 3) retrieved 3 May 2024 from <https://medicalxpress.com/news/2017-11-depression-treatment-overhaul.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.