

Reviewer's report

Title: Nutritional therapies for mental health disorders

Version: 1 **Date:** 7 August 2007

Reviewer: Alan Logan

Reviewer's report:

General: This review is a major undertaking, a very broad topic. The authors have succeeded in providing a concise manuscript, one that synthesizes the research and underscores the importance of nutrition in mental health. It provides a sound rationale for further study of this topic, as well as clinical investigations. However, the authors should emphasize that many of the studies referenced fall below level I within evidence-based medicine. Without further exploration of the references, the casual reader may conclude that these studies were conducted under a high degree of scientific rigor.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

If the study was conducted in open-label or uncontrolled fashion, the authors should state so. Examples include the reference for magnesium in depression by Eby and for the autism protocol by Mousain-Bosc (this study did not have a placebo).

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

Mental health providers will represent a very large potential audience for this paper. The authors suggest that mental health care providers make efforts to recommend doses of dietary supplements based on efficacious studies and then work with individualized dose response in the clinical setting. To accomplish this objective the authors should take care to highlight the nutrient doses used in the studies highlighted. This was documented in some, but not all places. For clinicians, this is critical information. An example of dose application would be highlight the clinical studies of essential fatty acids in ADHD/learning disorders. There have also been specific studies of omega-3 and schizophrenia where dosage may be important. Omega-3 fatty acids have been the subject of controlled research in patients with autism.

The authors make a casual reference to the Western diet lacking in fruit and

vegetable intake. In order to bolster the notion that poor nutrition is a contributing factor (in some) to mental health disorders, it would be helpful to expand on this a bit and add in some referenced detail on the state of dietary intake of North Americans, particularly those who are not in the upper socio-economic brackets.

The authors should consider weighing the evidence and discuss nutrients with the strongest evidence for conditions. e.g. zinc is absent from the discussion of depression, yet it has been the subject of quality, controlled research and numerous population studies.

GABA and theanine supplementation may warrant discussion e.g. see Abdou, et al. Relaxation and immunity enhancement effects of gamma-aminobutyric acid (GABA) administration in humans. *Biofactors*. 2006;26(3):201-8.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.