Proof-of-concept studies in Yoga and mental health

Sir,

There is no denying that the efficacy of Yoga as a mode of treatment has been proven in patients with mental illness like depression.[1] On the other hand, there are several case reports of acute psychotic illness occurring in people who attend certain Yoga courses. The adverse events may be due to a Yoga-induced increase in biological parameters such as P300 amplitudes,[2] which has also been shown to be increased during episodes of acute psychosis.

The possibility of negative outcomes with Yoga makes many psychiatrists wary of prescribing Yoga to their patients on a routine basis. The negative outcomes with certain Yogic practices are possibly due to different neurophysiological effects of the different forms of Yoga.

Researchers in yoga should conduct 'proof-of-concept' studies to look for specific alterations in various neurophysiological parameters that could be beneficial or could forewarn of negative effects in certain patient populations. Endophenotypes (biological markers) specific to various diseases have been discovered and the effects of specific Yogic practices on each of these parameters may be tested prior to studies in clinical populations. This will help to positively predict response to a particular method of Yoga. On the other hand, the same parameters can be used to predict the possibility of an adverse reaction to Yoga in a given person. For example, a recent study has shown that Yoga can improve the deficits in emotion recognition in patients with schizophrenia.[3] This deficit in emotion recognition has been shown to correlate with poor socio-occupational outcomes in schizophrenia.

Clinical trials of Yoga in psychiatric disorders are fraught with difficulties in standardizing the instruction of Yoga, ability to blind the allocation in a foolproof manner, defining the interventions for the control arm and the question of how much did the patient involve himself in it. A 'proof-of-concept' study based on neurophysiological principles will be a useful foundation to larger clinical trials of Yoga in specific psychiatric disorders. It will help to match specific Yogic techniques to specific disorders. It may also warn against certain techniques that can precipitate a disorder. Such studies can also help allay doubts that the 'response' seen to a particular form of Yoga was merely due to 'expectancy effects' where the participants were expecting Yoga to be helpful and therefore there was an improvement in symptoms. Biological markers are likely to be resistant to such effects.[4]

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