scientific acceptability. We applied rigorous diagnostic criteria for schizophrenia and supplemented the use of the PSE (2) with extensive retrospective data collection. Treatment methods other than ECT were carefully standardized and at the end of a standardization period consenting patients were randomly allocated to an ECT or a placebo-ECT group. Double-blind ratings were made, at regular intervals, of clinical state and social functioning. These were reported for stages up to the fourth month after the start of the treatment. Follow-up has been continued beyond this for a substantial number of patients. The main advantage of the true ECT appeared to be establishing recovery significantly earlier than in the control group.

Our study suffered from an important problem that Dr. Salzman did not discuss, and one which is perhaps most difficult to circumvent. There is a great reluctance to use ECT in Great Britain that I suspect is not dissimilar from the position held in the United States. This reluctance is particularly strong in regard to treating schizophrenia. The value of our results is therefore limited by the very small number of patients it was possible to include in the ECT trial. Of 70 realistic referrals, only 20 proceeded into the central study. The work nevertheless indicates that there may be a place, albeit a limited one, for ECT in the management of schizophrenia and also demonstrates that it is possible to run a double-blind controlled trial with minimal disruption and distress to patients. Thus, I hope that my drawing attention to it will provide further support for Dr. Salzman's plea for more research and for the case that this can be more scientifically acceptable than earlier work.

REFERENCES

PAMELA TAYLOR, M.B., M.R.C.P., M.R.C. PSYCH.
London, England

Carbon Dioxide Therapy

Sir: I would very much like to correspond with any members still using carbon dioxide therapy (30% carbon dioxide, 70% oxygen) as outlined by Meduna.

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Consciousness Disciplines: Immune to Scientific Investigation?

Sir: I was dismayed that the American Journal of Psychiatry published "The Consciousness Disciplines and the Behavioral Sciences: Questions of Comparison and Assessment," by Roger Walsh, M.D., Ph.D. (June 1980 issue). Although I enjoyed reading it and found it enlightening, I did not feel that a journal of psychiatry was the correct forum for its publication.

Basically, it was not a scientific paper and did not warrant publication in a scientific journal. I agree with Dr. Walsh that there is a "paradigm clash." However, I find little difference between the consciousness disciplines of the Eastern traditions and better known religions of the Western world. This includes traditional Western theology as well as the spiritual experience of a born-again Christian or even a follower of the Hassidim.

Dr. Walsh's article reminds me of Otto Fenichel's article "Psychoanalysis and Metaphysics" (1). In this paper Fenichel deals with the concept of intuition as well as religion and similar cosmic experiences. He describes these feelings as derivatives of the original relationship a person has with his mother.

Dr. Walsh alluded to, but then dismissed, this concept. He feels that psychoanalytic or psychiatric investigation of the consciousness disciplines is futile. Then why did he submit his article to a psychiatric journal? If the consciousness disciplines and current psychoanalytic thinking are both correct, then surely each can be used to understand the other. If the consciousness disciplines are articles of faith, immune to scientific investigation, then they are best left to journals of philosophy and religion.

REFERENCE

MARKHAM KIRSTEN, M.D.
Reedley, Calif.

Dr. Walsh Replies

Sir: Dr. Kirsten's concern about the publication of "The Consciousness Disciplines and the Behavioral Sciences" in the American Journal of Psychiatry seems to be based on four ideas. First, he believes that the paper was not scientific and that only scientific papers warrant publication in the Journal; second, that the consciousness disciplines are essentially no different from traditional Western religions; third, that I feel psychoanalytic or psychiatric investigation of the consciousness disciplines is futile; and fourth, that the consciousness disciplines are articles of faith immune to scientific investigation.

I share Dr. Kirsten's feelings that the consciousness disciplines should be subject to investigation by Western psychiatry but disagree with the four statements listed above.

Before deciding whether the paper was scientific, we must consider the nature of science. The defining characteristic of science is its method of acquiring knowledge, not the subject matter to which that method is applied. The data review and theorizing contained in my paper were quite consistent with that part of the scientific method.

Furthermore, the consciousness disciplines are not proposed as articles of blind faith and are certainly not immune to scientific investigation. This is evidenced by a rapidly growing body of empirical research such as in the field of meditation in which a broad range of behavioral, phenomenological, physiological, and chemical responses have been identified (1, 2). One of the key requirements for practicing these disciplines is an open-minded, experimental approach through which one tests the disciplines' claims. In The Spectrum of Consciousness, Wilber wrote, "This experiment,