

*L. B. Mendel Memorial Symposium on
Nutrition and Metabolism in Mental Disease*

Introduction

THE state hospitals of this country have an unmatched abundance of clinical material readily available for research in human metabolism that has not been properly utilized. Although papers from the workers in the L. B. Mendel Research Laboratory at the Elgin State Hospital were not included in the Mendel Memorial Symposium on Nutrition and Metabolism in Mental Disease, one of the main purposes of holding this symposium at the Elgin State Hospital was to direct attention to the wealth of opportunities for controlled long-term research on man that can be conducted in an institution for mental diseases.

It has been noted frequently that approximately half of all the hospital beds in this country are occupied by patients with some manifestation of mental disease. Perhaps the publicity that has been given to unproved claims of differences in metabolism between schizophrenic and normal subjects has had an inhibiting influence on the plans to utilize subjects with schizophrenia in studies of normal metabolism. Actually, only a tiny fraction of the many cases of mental disorders have been definitely linked to biochemical or genetic aberrations; the much larger group of patients with schizophrenia are, from the viewpoint of present knowledge, sufficiently close to normality in their physiologic functions to be considered good subjects for studies of normal metabolism. In any case, the problem of determining whether or not the schizophrenic

patient has a biochemical abnormality that is not related to his environment is of such tremendous importance that the establishment of many more nutritionally controlled metabolic units in state hospitals is fully warranted.

The wisdom of the Food and Nutrition Board of the National Research Council in promoting the nutritional studies at Elgin during the past twenty years has been proved. Not only has it been possible to make significant contributions to the better understanding of the thiamine, riboflavin, niacin-tryptophan, protein, tocopherol and fatty acid requirements of man, but also, the metabolic unit organized for these investigations served as a clearing house to test many of the claims of biochemical aberrations in mental diseases.

Perhaps the most flagrant example of confusion caused by inadequate dietary control is the continuing publication of papers on the indole metabolism of schizophrenic patients without reference to long-term control of their tryptophan intake. The fact that it may take from one to three months to equilibrate the excretion of N'-methyl nicotinamide and related compounds is often neglected completely. Similarly, the state of nitrogen balance, the levels of ascorbic acid and other vitamins, the uncontrolled ingestion of coffee and other condiments, and the interrelationships of these and other nutritional variables with the stresses of disease, age of the patient and factors affecting the contribution made by

intestinal bacteria are given lip-service—not so much because they are not recognized, but because the exact control of alimentary intake is considered to be difficult.

Probably nowhere else is it as easy to find so much material for the study of nearly all aspects of human metabolism as in a state hospital. Such studies can often be conducted at a fraction of the expense of equivalent projects in university centers because much of the cost of the patient's maintenance need not

be a part of a research budget. More often than not, the hospital administration is more than willing to cooperate. The major obstacle is in the attitude of the academically oriented scientist who would rather have university prestige than research opportunity.

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