IUPUI and Nigeria Collaborate in Research on Alzheimer's Disease

Through a project known as the “Indianapolis Study on Health and Aging,” the Indiana University School of Medicine’s Department of Psychiatry is conducting comparative community prevalence studies of age-associated cognitive impairment in Indianapolis and Ibadan, Nigeria. The research at both sites is funded by a $2.7 million, four-year grant from the National Institute of Aging. In Indianapolis, the project is headed by psychiatrist Dr. Hugh Hendrie, Principal Investigator, and epidemiologist Dr. Kathleen Hall, Project Director. The project in Ibadan is headed by Principal Investigator Dr. Benjamin Osuntokun and Project Director Dr. Adesola Ogunnyi.

The Indianapolis-based research project marks the only U.S. site in the World Health Organization’s multi-site comparative program of prevalence and incidence studies currently underway in Canada, Chile, and Malta. This multinational study represents the first large scale effort to identify environmental risk factors for Alzheimer’s disease. The chances for delineating environmental risk factors and separating them from genetic factors are increased when groups with similar genetic heritage at different levels of technology and in different environments are compared, as in the Indianapolis/Ibadan project. If any of the participating sites has either a very low (as expected in Nigeria) or a very high prevalence of the disease, the search for environmental risk factors will be systematically undertaken by comparing different aspects of the cultures and the relative exposure to putative disease pathogens and environmentally produced noxious agents.

The project began fieldwork in May, 1992. In Indianapolis, the last of the interviews with randomly sampled African-Americans 65 years and older were completed in August, 1993. About 20% of the individuals screened were given a full physical, psychiatric, neurological, and neuropsychological examination at the University Hospital Outpatient Care Center or in a home visit. Results of the clinical work-ups were sent to family physicians, with patients diagnosed with cognitive impairment to receive periodic follow-up. In Ibadan, the research team followed the same protocol and schedule. Data from this initial community prevalence study are currently being analyzed in Indianapolis and Ibadan. Comparative analyses will also be carried out with the data from the other WHO study sites. In July 1994, the project will begin its follow-up incidence study re-evaluating the 2500 individuals at each site in order to identify new cases.

The interdisciplinary IU team includes investigators from the Departments of Psychiatry, Neurology, Neuropsychology, Medicine, Toxicology, Pathology, and the School of Social Work. The collaborative relationship established for this study between Indiana University and the University of Ibadan provides for the mutual exchange of physicians and other investigators for training and research. As the study developed, investigators from both sites have made short exchange visits in order to set up each site and train staff and clinicians in identical methods. Longer visits have also taken place. Neuropathologist Dr. Aifong Akang from Ibadan spent the 1992-93 academic year training with Dr. Bernardino Ghetti of the IU School of Medicine. Dr. Olusegun Baiyewu, Senior Lecturer in Psychiatry at the University of Ibadan, has been awarded a fellowship from the International Medical Scholars Program to study with Dr. Hugh Hendrie in Indianapolis from May 1994 to April 1995.

One short-term benefit to accrue to the Indianapolis community from this research is the improvement of services and outreach to the under-served African-American community offered through IU’s long-term Alzheimer’s Clinic and Research Core Program. This comprehensive program now provides an array of new social services to patients and their families, including the first Alzheimer’s Association family support group for African-Americans in Indianapolis, begun by Alzheimer’s Clinic nurse Mrs. Nicki Coleman. In addition, the Central Indiana Council on Aging participates actively in the project by training project fieldworkers and by serving as liaison contacts for individuals in the community needing services. On neighborhood and community issues, the project also works closely with the council’s Community Advisory Committee, whose members include Pamela Carter, Michael French, Frank Johnson, Sam Jones, Daisy Lloyd, Carol Meriweather, Jim Nelson, Paula Sawyer, and Rev. Landrum Shields.