Ethnic Disparities in Cognitive Impairment May be Explained by Ethnic Disparities in Type 2 Diabetes

James M. Noble, MD; Jennifer J. Manly, PhD; Nicole Schupf, PhD; Ming-Xin Tang, PhD; José A. Luchsinger, MD. Type 2 Diabetes and Ethnic Disparities in Cognitive Impairment. Ethnicity & Disease 2012; 22: 38-44.

A new study simultaneously tackles several questions about health disparities in diabetes and cognitive impairment, related questions that are seldom addressed together at one time. The research shows that a significant amount of the ethnic disparities that occur with regard to cognitive impairment could disappear if diabetes rates among ethnic groups were equal, assuming that diabetes is a cause of cognitive impairment. Dr. James Noble, Assistant Professor of Neurology, conducted this study using data from the Washington Heights Inwood Columbia Aging Project (WHICAP; PI: Richard Mayeux; P01AG07232, R01AG037212).

Dr. Noble, in collaboration with investigators from the Sergievsky Center, Taub Institute, and NOCEMHD, explored whether ethnic differences in type 2 diabetes (T2D) explain ethnic disparities in cognitive impairment using a longitudinal study design in WHICAP, a cohort study of multiethnic community dwelling elderly persons in Northern Manhattan, New York; 941 participants aged ≥ 65 years without prevalent cognitive impairment or dementia (CID) were followed for a median of 7.1 years. CID was defined by a clinical dementia rating ≥ 0.5. CID risk attributable to T2D was estimated for each ethnic group using the hazard ratio (HR) relating T2D and CID and the ethnic prevalence of T2D. Among the 941 participants, 448 developed CID (69 (31.4%) Non-Hispanic Whites (Whites), 152 (48.6%) Non-Hispanic-Blacks (Blacks), 227 (55.6%) Hispanics, p<0.001). T2D prevalence was 8.2% in Whites, 20.1% in Blacks, and 19.6 % in Hispanics, p<0.001. Controlling for age, gender, education, and APOEe4, the HR relating T2D and CID was 1.63 (95% CI 1.26, 2.09). CID attributable to T2D was higher in Blacks and Hispanics compared to Whites (11.4% vs. 4.9%; p=0.06). It was estimated that reducing the ethnic disparities in diabetes prevalence could reduce the CID ethnic disparities by 17%.

HIGHLIGHTS

Bioethics in NOCEMHD (PI: Appelbaum, Lewis-Hernandez, Luchsinger; 3P60MD000206-09S2). The goal of this initiative is to conduct a 1 year bioethics program to address unresolved issues in 3 specific areas of minority health research: use of administrative data for recruitment of minorities with a condition, the recruitment of their relatives, and the use of stored biospecimens and data for retrospective research. A Bioethics Committee has met three times to discuss these issues and a focus group in the community was held on 02/15/12. A survey of CUMC investigators will follow in March. Information collected from the committee, the focus groups, and the surveys, will be used to organize symposia and formulate positions and solutions. For more information please contact Gabriela Torres (gt2254@columbia.edu).

Northern Manhattan Coalition for Minority Health and Health Disparities (NOCOMHD) will hold its second networking event on Tuesday, March 27, 3-5 PM at the Hess Commons, Mailman School of Public Health. This event will showcase relevant research on Minority Health and Health Disparities at the MSPH.

AVAILABLE POSITIONS

We are seeking early and/or midcareer investigators with an interest and track record in minority health and health disparities to fill Assistant Professor and Associate Professor positions in the Center on Aging and Health Disparities in the Division of General Medicine, where NOCEMHD is housed. MD, PhD, and other degrees welcome. If interested or referring someone, please send the candidate’s CV to José Luchsinger at jal94@columbia.edu.

We are seeking a part-time or full time biostatistician or epidemiologist with advanced biostatistical skills for data analyses and preparations of reports for center studies. Students enrolled in Master and Doctoral degree programs are welcomed to apply. Proficiency in SAS required. Please contact Cynthia Morel at cm2632@columbia.edu.
ABOUT OUR ONGOING PROJECTS

PROJECTS SEEKING PARTICIPANTS
Northern Manhattan Study of Metabolism and Mental Health (NOMEM; PI: J. Luchsinger, J. Manly). NOMEM is a cohort study of 1200 Hispanics aged 55 to 64 years at baseline intended to study the interplay of metabolic conditions (pre-diabetes, diabetes) with mental health (cognition, depression). Recruitment is now open and is expected to finish 07/31/2013. For referrals or more information, please contact Thania Perez (tp82@columbia.edu).

Northern Manhattan Caregiver Intervention Project (NOCIP; PI: J. Luchsinger; NCT01306695) is a 6 month randomized trial comparing the New York University Caregiver Counseling Intervention to a community health worker intervention in 160 Hispanic caregivers of persons with dementia. Recruitment in NOCIP will be open until June 2012. For referrals, please contact Gabriela Torres (gt2254@columbia.edu).

PROJECTS WITH COMPLETED RECRUITMENT
Northern Manhattan Community Outreach Project (NOCHOP; leader: W. Palmas, MD; Clinicaltrials.gov identifier NCT00787475) is a randomized trial of a 12 month community health worker intervention compared to usual care in 360 Hispanic persons with poorly controlled type 2 diabetes. NOCHOP completed recruitment in September 2011 and study procedures will finish in September of 2012.

Diabetes Control and Memory Impairment in Minority Elderly (DIadem; Leader: J. Luchsinger, MD) is a cohort study of 611 persons with diabetes with the objective of studying predictors of memory impairment among persons with type 2 diabetes. DIAMEM is closed to recruitment.

Counseling Adults to Control Hypertension (COACH; leader: O. Ogedegbe, MD; NCT01180673) is a randomized trial of a 12 month community based intervention to improve blood pressure control among African American and Hispanic elderly. COACH completed recruitment in June of 2011 and is expected to finish study procedures in June of 2012.

NEW PROJECTS
Environmental health disparities in NOCEMHD (PI: Link, Luchsinger, March; 3P60MD000206-09S1). The goal of this project is to establish the Contextual Health Disparities-Core (COHD) in NOCEMHD and collect environmental contextual data in our ongoing projects listed above. Study setup including IRB approvals, computerized questionnaires, and personnel training are completed and data collection is under way. This work will illuminate on the influence of social and environmental context in our ongoing studies.

RFA IN MINORITY HEALTH/HEALTH DISPARITIES
We are eager to collaborate in these 2 new RFAs:

RFA-MD-12-003: NIMHD Social, Behavioral, Health Sciences, and Policy Research on Minority Health and Health Disparities (R01).

RFA-MD-12-004: NIMHD Basic and Applied Biomedical Research on Minority Health and Health Disparities (R01)

MEMBER NEWS
Marina Catalozzi, MD, Director of the Lang Youth Program, supported by a NOCEMHD supplement from 2009 to 2011, will have a platform presentation at the 2012 Eastern Society for Pediatric Research Annual Meeting on March 31st. The presentation will be “Lang Youth: Impact of a Longitudinal-Hospital Based Science Enrichment and Mentoring Program”. More information about Lang Youth is available on our website.

José Luchsinger, MD, became a member of the Board of Scientific Advisors of the National Institute on Aging and will begin his duties in May of 2012.

COLLABORATION, TRAINING, AND CAREER OPPORTUNITIES
Career development and ancillary studies: We are interested in supporting ancillary studies in our ongoing and future projects, including proposals for loan repayment programs, K awards, small grants (R03, R21) and R01 projects. Please contact us for more information.

CONTACT INFORMATION
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