

tures may be revealed decades before the first clinical symptoms of presumbable dementia.

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LEISURE ACTIVITIES ARE ASSOCIATED WITH COGNITION IN COMMUNITY DWELLING VERY ELDERLY

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Background: Recent findings suggest that socially or mentally stimulating activity may protect against dementia. **Objective:** To examine, cross sectionally, the association of several leisure activities with cognitive functioning in a non-demented community dwelling very elderly sample from an ongoing longitudinal study on risk and protective factors for Alzheimer's disease. **Methods:** Factor analyses of the neuropsychological variables yielded two rotated varimax factors: memory (primarily immediate and delayed recall, recognition, and Savings) and executive functioning (primarily Trail Making Tests A and B, and Shipley Vocabulary Test). The 10 leisure activities (watching news on TV, listening to radio, games, theater, courses, social gatherings, travel, gardening, art with hands, and writing) were not strongly inter-correlated. Multiple partial correlation assessed the association of the leisure activities with the neuropsychological factors, controlling for age, sex, and education. **Results:** 148 subjects (61% women, mean age = 87.3 ± 5.8 and mean education 15.1 ± 3.2) had complete data. For memory, the multiple partial correlation did not reach statistical significance ($R = .32$; $F(10,134) = 1.56$; $p = .13$). The only significant partial correlation for individual leisure activities was for art with hands ($r = .21$; $p = .01$). For executive functioning, the significant association ($R = .39$; $F(10,134) = 2.33$; $p = .02$) reflected writing ($r = .23$; $p = .005$), (not) watching news on TV ($r = -.18$; $p = .03$), listening to radio ($r = .17$; $p = .04$), and travel ($r = .16$; $p = .05$). Partial correlations with writing of the Shipley Vocabulary Test ($r = .24$; $p = .003$) was stronger than with the Trails A ($r = -.15$; $p = .07$) and B ($r = -.16$; $p = .06$) suggesting that the association with the executive functioning factor reflected cognition rather than simple motor ability. **Conclusions:** In this interim sample, cognition was associated with increasing frequency of several leisure activities, after adjusting for age, sex, and years of education, in non-demented community dwelling subjects who are very old and thus at high risk for dementia. Leisure activities are a modifiable life style characteristic that might contribute to prevention of dementia.

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LARGE SAMPLE ANALYSIS OF AD AND ADRD RISK FACTORS

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Background: The goal of reducing risk for developing Alzheimer's disease (AD) or a related disorder (ADRD) is both reasonable and plausible. To accomplish this goal, it is important to develop an accurate measure of total AD and ADRD risk for each individual so that studies can be designed to measure reductions in this risk. However, no study has examined the aggregate of all putative AD and ADRD risk factors to determine the individual's total risk. **Objectives:** To identify an aggregate measure of total AD and ADRD risk through massive data mining. **Method:** Medical Care Corporation used Evidence-Based Medicine methods to identify 81 putative AD/ADRD risk factors such as high cholesterol, diabetes, life style, and family history of specific conditions. An online product, the *Prevention Report*, was then designed to capture these risks using question-and-answer format. For each risk factor question, a simple explanation is provided, and the user checks the box for risk factors that apply. Upon

finishing, a customized report summarizes the user's risk profile and provides related educational information. From May 2004 to Dec 2006, 11,708 individuals took the *Prevention Report* (M:20%, F:80%, mean age: 53.7 ± 13.1 years, mean education: 14.7 ± 3.1 years). These data were analyzed by computing their inter-correlations, then data reduction methods were applied. **Results:** The results showed that total AD and ADRD risk scores could be generated by collapsing the data into just a few aggregate dimensions. The distributions of the risks were compared with those reported in the literature. **Conclusions:** Analysis of all putative AD and ADRD risk factors identified a way to compute total AD and ADRD risk using just a few aggregate dimensions of the original 81 risk factor variables. Such a total risk score should be useful for prevention research.

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IDENTIFYING SUCCESSFUL COGNITIVE AGING ENDOPHENOTYPES IN THE CENTRAL VALLEY OF COSTA RICA

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Background: Successful cognitive aging (SCA) is a genetically complex desirable trait. Gene identification will thus be facilitated through the delineation of cognitive endophenotypes, i.e., intermediate traits that are more direct expressions of single specific genes or a small number of genes. Strong delayed recall and psychomotor speed are both promising candidates for such endophenotypes. We looked at these functions in the offspring of very elderly (90+) nondemented (VEND) probands and two comparison groups from the Central Valley of Costa Rica (CVCR), a population with increased genetic homogeneity. **Objective(s):** To identify cognitive endophenotypes for SCA. **Methods:** Delayed recall and psychomotor speed were assessed in 52 VEND probands from the CVCR and 76 of their aged 60+ year old offspring. Two CVCR comparison family groups were also assessed: 1) 24 very elderly demented (VED) probands and 43 of their 60+ year old offspring; 2) 31 young nondemented elderly (YND) probands and 67 of their 60+ year old siblings. **Results:** Using a random effects model controlling for age, sex, and education delayed recall was significantly better among VEND offspring than VED offspring ($P < .05$) and nominally better than YND siblings. Psychomotor speed was significantly better among VEND offspring than YND siblings ($P < .05$) and nominally better than VED offspring. **Conclusions:** These data offer preliminary evidence that delayed recall and psychomotor speed functions are useful endophenotypes for SCA.

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A ROMANIAN EC DESCRIPA PROJECT PRESENTATION

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Background: Patients recruited in the Romanian DESCRIPA (Development of Screening guidelines and clinical CRiteria for Predementia Alzheimer's disease) (QLK6-CT-2002-02645) study: patients admitted to the hospital between 1st of July 2005 and 31st of June 2006, the total of 450 patients of whom 55 were patients with MCI included in the study. **Objective(s):** To assess the prevalence of various risk factors and comorbidities in all new patients with mild cognitive impairment admitted in the memory unit. To ascertain the validity of the international model for the distribution of co-morbidities and risk factors for MCI in Romania. **Methods:** There were inclusion and exclusion criteria for these patients. There were charts revealing the distribution of patients regarding gender and age, education, place of residence, prevalence of alcoholism, myocardial infarction, depression, relationship between prevalence of depression and the loss of memory, prevalence of osteoporosis. We have implemented new criteria to the Descripa data set in order to perform analyses with MCI