

MACARTHUR STUDY OF SUCCESSFUL AGING

The subjects for this study consisted of men and women aged 70-79 from 3 Established Populations for the Epidemiological Study of the Elderly (EPESE) programs located in East Boston MA, New Haven CT, and Durham County NC. Participants were screened on the basis of criteria of high physical and cognitive functioning.

Listing of study variables & measurement of variables

The MacArthur Battery is a 90 minute face-to-face interview designed to be given in the respondent's home and covering:

Detailed assessments of physical and cognitive functioning and performance:

- Cognitive performance was assessed with 5 tasks: Boston Naming Test; delayed verbal memory test; spacial memory by means of the delayed recognition Span Test; Similarities subtest of the Wechsler Adult Intelligence Scale-Revised (WAIS-R); and copying of geometric figures adapted from an instrument developed by Rosen et al. (1984).
- Physical performance measures were based on both lower body function (balance and gait) and upper body function (strength and dexterity). Many performance were judged on the basis of time taken to complete tasks.
- Balance was assessed by a graded series of tests developed by Nevitt (1989). Gait measures were based on assessments of a 10 foot walk. Respondents were also timed as they tapped a foot, switching back and forth between 2'' circles 1 foot apart while in a seated position.
- Upper body function was assessed first by a measure of hand grip strength using a dynamometer. Subjects were also asked to sign their name and this hand signature was timed.
- Self-reported physical activity was assessed using questions adapted from the Yale Physical Activity Survey (YPAS, 1993)

Productives activities:

- participation in volunteer activities, child care, paid employment and other forms of productive activity (measures adapted from University of Michigan's Survey of "Americans Changing Lives").

Social networks and social support (EPESE surveys, and work at Yale, University of Michigan and Duke):

- Structural measures of network: size, geographical proximity, and frequency of contact.
- Support measures focus on the quality of emotional and instrumental support and perceptions of adequacy as well as demands and conflicts.

Other psychological characteristics:

Hopkins' Symptom Checklist on depression, anxiety, interpersonal problems and somatization.

- Personal mastery (Pearlin and al., 1978)
- Self-efficacy (Rodin, 1993)
- Life satisfaction
- Happiness
- Demands and latitudes in daily life

Biomedical and health status measurements

- Measurement of seated and postural blood pressure
- Pulmonary function
- Waist/hip ratio
- Self-reports of 8 chronic conditions and symptoms of angina pectoris (from EPESE) - Medications (from EPESE)

Physiological measures from blood and urine specimens

Urine tests: assays of cortisol, epinephrine, norepinephrine, dopamine and creatinine content.

- Blood tests: HDL and total cholesterol, desydroepiandrosterone sulfate (DHEAS) and serum glutamic oxalacetic transaminase (SGOT). Assays of glycosylated hemoglobin (HbA).