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From the SelectedWorks of Paulo A Lotufo

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Estudo Longitudinal de Saúde do Adulto -ELSA- BRASIL [English]

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The first cohort studies addressing cardiovascular diseases and diabetes in the Southern Hemisphere.
The Longitudinal Study of Adult Health – ELSA - is a cohort study including 15,000 civil servants 35-74 years-old from 6 institutions: University of São Paulo (5,000) Federal University of Minas Gerais (3,000) Federal University of Bahia (2,000) Federal University of Espírito Santo (2,000) Fundação Oswaldo Cruz (2,000) Federal University of Rio Grande do Sul (2,000) with the main objective to study cardiovascular diseases and diabetes in Brazil
Questionnaire
Duration of 3 1/2h divided in 2 moments:
Phase 1: 1 1/2h in the work place of the participant
Phase 2: 2 h during the Baseline Field Center Examination Visit

ELSA Questionnaire includes:
Personal identifiers with current home address, primary and secondary telephone numbers permitting participant’s localization.

Personal Information Questionnaire asking about demographics, education, socioeconomic status, parent’s place of birth, history of migration and occupational history
Medical and family history questionnaire asking about history of hypertension, diabetes, high blood cholesterol, heart attack, heart failure, rheumatic heart disease, medical procedures as balloon angioplasty, stent or bypass surgery, stroke, peripheral artery disease, liver disease and kidney problems.

For angina, a short version of Rose Angina Questionnaire.

For peripheral artery disease, Rose intermitent claudication questionnaire.

For migraine, a specific questionnaire according to International Headache Society criteria.
questionnaire

- lifestyle
- alcohol use
- tobacco use
- physical activity  - IPAQ - International Physical Activity Questionnaire (accelerometer in a subsample?)
- diet
Questionnaire

Weight history
The participant has to choose one of the figures in which he/she identifies with in childhood, adolescence (10-19 years-old) and adult life:
Diet – After a lot of discussions, we chose to use a food frequency questionnaire.

At least three Brazilian regions are represented in ELSA (Northeast, Southeast and South) with a lot of differences regarding regional food which is a strong point in the study.

Based on an already validated Brazilian food frequency questionnaire we included new items with the objective to incorporate regional food, fast food consumption and some new habits as Japanese food consumption.

The ELSA food frequency questionnaire will be validated using as a gold standard four 24h dietary recall done in spring, summer, fall and winter – ELSA Products.

Questionnaire also include questions about dietary behavior, binge eating and purging habits.
Neurocognitive assessment

ELSA

1. Verbal Memory – we test verbal memory using a list of 10 words the interviewer reads to the participant three times; after each time, the participant has to recall the words - a similar procedure to the SEVLT – Spanish and English Verbal Learning Test used in SOL
Questionnaire

Neurocognitive assessment

The next procedure includes:

2. two one-minute word generation trials for:

   Evaluation of semantic fluency - participants generated words with animal names

   Evaluation of phonemic fluency - participants generated words beginning with the letter F
CIS-R – The Revised Clinical Interview Schedule is a fully structured diagnostic interview covering non-psychotic symptoms particularly those associated with depression and anxiety.

Based on answers to CIS-R an algorithm will lead to ICD-10 diagnostic categories (World Health Organization, 1992)

CIS-R diagnostic coverage is limited to those non psychotic disorders covering ICD-10 F32 to F42.
Psychosocial factors

Social capital refers to the social context of people’s lives. It is a multidimensional concept that includes trust, social norms and reciprocity, features of social structures and networks and the resources embedded within them.

Resource Generator is an instrument that measures an individual’s access to social resources within their social network.
Questionnaire

It has 4 dimensions:
Social capital related to prestige and education
(ie., to know someone who speaks another language);
Social capital related to politics and money
(ie., to know a politician that can help in something);
Social capital related to personal abilities
(ie., to know someone who fix cars);
Social capital related to social support
(ie., to know someone who can give counselling in a conflicting situation at work)
Context characteristics and violence – measurement of “place effects” on health.

In ELSA Study, the psychosocial and physical dimensions of the neighborhood environment to be studied include affirmatives related to:

Social cohesion “people around here are willing to help their neighbors”

Aesthetic quality “My neighborhood is attractive”

Walking environment “It is pleasant to walk in my neighborhood”

Availability of healthy foods “Fresh fruits and vegetables in my neighborhood are of high quality”
Other dimensions are:

Safety “My neighborhood is safe from crime”

Perceived violence “During the past 6 months, how often was a gang fight?”

Personal victimization “While you live in this neighborhood, has anyone ever used violence, such as in a mugging against you...?”

The options: Strongly agree, agree, neither agree nor disagree, disagree, strongly disagree
Questions about Family and health
Family and marriage has been described as primordial sources of social support being protective against stressful situations of daily life, at work and others

ELSA questionnaire includes questions about family characteristics, number of people in the family including husband/wife, children, personal relationships with them, job and family conflicts and personal or academic career.
Any experience of discrimination as a risk factor for cardiovascular disease and diabetes
Any kind of discrimination: at work, neighborhood, politics, in public places (bank, shop, hospital...) at college, related to:
race
gender
religion
some kind of disease or disability
sexual orientation
economic conditions
political activities
Questionnaire

Use of medication for treatment of chronic diseases, medical supplements, use of sporadic medication
Morisky Scale for adhesion

One question about self-perception of health

A specific section for women regarding women’s health including questions about menstruation, pregnancy, obstetric history, menopause, current and past contraception methods and hormone supplementation
Anthropometry

Weight
Height
Waist circumference
Hip circumference
Sitting height
Physiological

- sitting blood pressure
- ankle brachial index
- postural hypotension
- heart rate variability
- pulse-wave velocity
Laboratory Tests

- Glucose Tolerance Test with insulin
- Total cholesterol
- LDL-cholesterol
- HDL cholesterol
- Triglycerides
- Creatinine
- Gama GT
- AST, ALT
- Uric acid
- Sodium, potassium
- HbA1C (glycate hemoglobin)
Laboratory Tests

Ultra-sensitive CRP
TSH, FT4 if an abnormal TSH is detected
Total blood cell count
Sorology for Chagas Disease

12 h Urine sample
(Microalbuminurty, Sodium, Potassium, Calcium and Creatinine)
1st Brazilian BioBank for Epidemiological Studies
Clinical research center at São Paulo
Intima-media thickness

a marker for subclinical atherosclerosis.
- IMT
- Hepatic steathosis
- Peritoneal fat
- Cardiac function
outcomes

- All-causes of deaths, cardiovascular, coronary-heart disease and stroke deaths.
- Incident cases of coronary heart disease, stroke, peripheral artery disease, stroke.
- Incident cases of diabetes and hypertension.
- Any hospitalization/surgery
- Disability
- Loss of hearing or vision
- Incident cases of cancer
December 31, 2010

- All six centers: 15,102 participants
- Second wave, tentative date: August, 2014.
- Ancillary studies ongoing: Hearing, PCOS, Endothelial Dysfunction, CAC/angiotomography