Health and Wellbeing in ELSA

Andrew Steptoe
Panayotes Demakakos, Cesar de Oliveira
Department of Epidemiology and Public Health
University College London, UK
http://www.ucl.ac.uk/psychobiology/

Different types of wellbeing

Economic or material wellbeing

Social wellbeing

Psychological or subjective wellbeing

Physical wellbeing

Policy interest in wellbeing

Commission on the Measurement of Economic Performance and Social Progress (Stiglitz commission)

ONS Measuring National Wellbeing Programme

OECD Compendium of Well-being indicators
United Nations Happiness and Well-Being Initiative

NIA: Subjective Well-Being and Public Policy

NAS: Panel on Measuring Subjective Well-Being in a Policy Relevant Framework

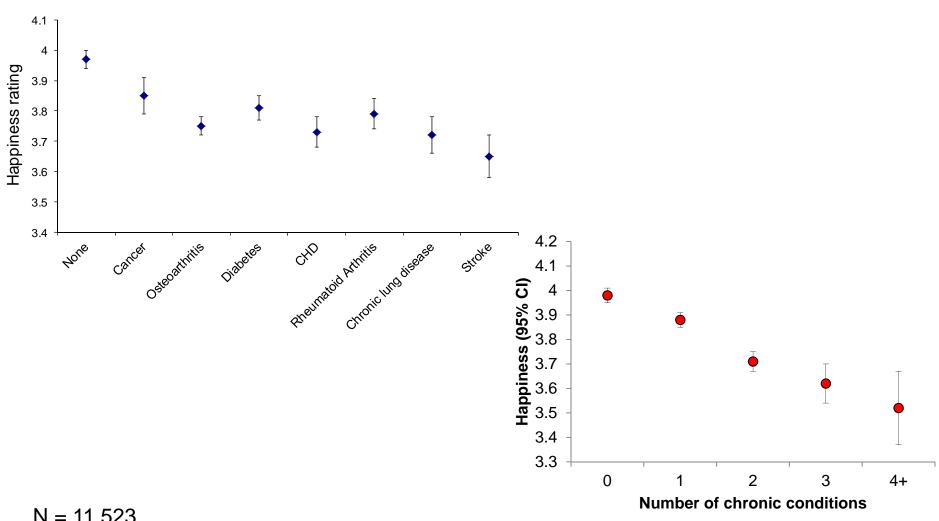
Health interest in wellbeing

Poor health leads to impaired wellbeing

Depression and anxiety raise the risk of serious physical illness, and increase morbidity in people with illness

Positive wellbeing might have protective effects

Happiness and physical illness



N = 11,523 adjusted for age, gender and wealth

PLoS One, 2011

Psychological wellbeing

Hedonic / affective

• Happiness, joy

Evaluative

• Life satisfaction

Eudemonic

 Sense of purpose, autonomy, self-realization

Measures in wave 5 of ELSA

Hedonic / affective

• Happiness, joy

Pleasure / enjoyment items from CASP19

- I enjoy the things I do
- I enjoy being in the company of others

Positive affect scale from HRS

- 13 items on 4-point scales
- Eg happy, enthusiastic, interested

CESD depression

Psychological wellbeing

Evaluative

• Life satisfaction

Diener SWLS

- 5 item scale
- Eg I am satisfied with my life

Psychological wellbeing

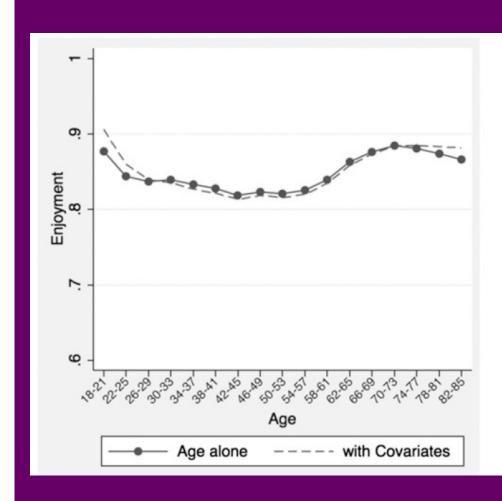
Eudemonic

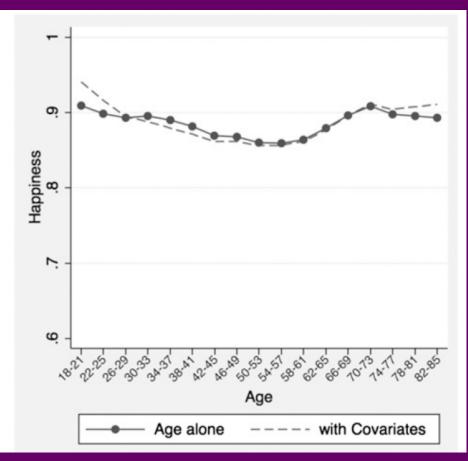
 Sense of purpose, autonomy, self-realization

CASP19 items

- I feel that my life has meaning
- I choose to do things that I have never done before
- I feel that what happens to me is out of my control (reversed)

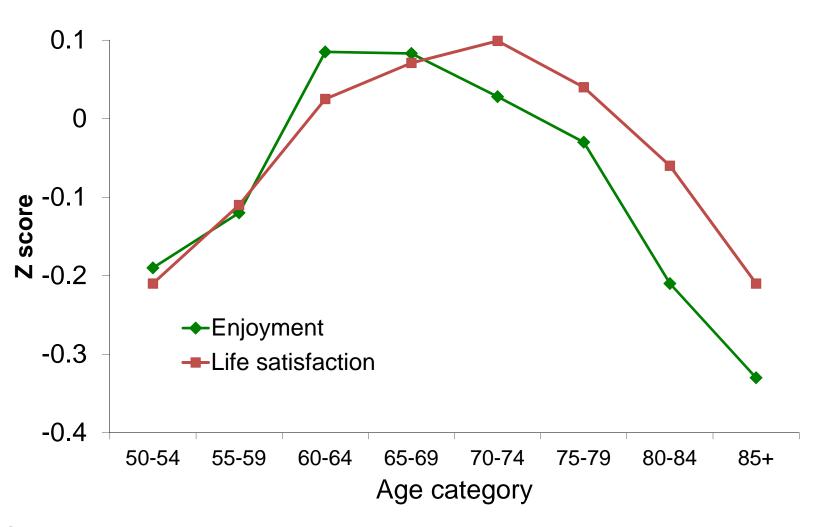
Positive well-being and age



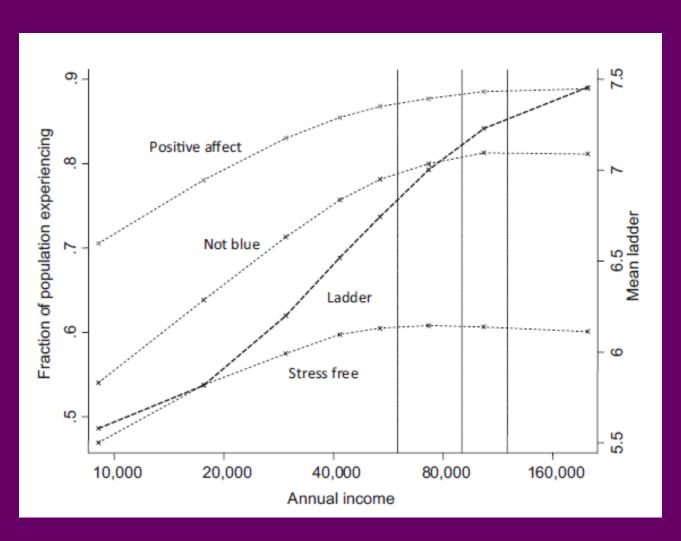


Stone et al 2010, PNAS

Psychological wellbeing and age

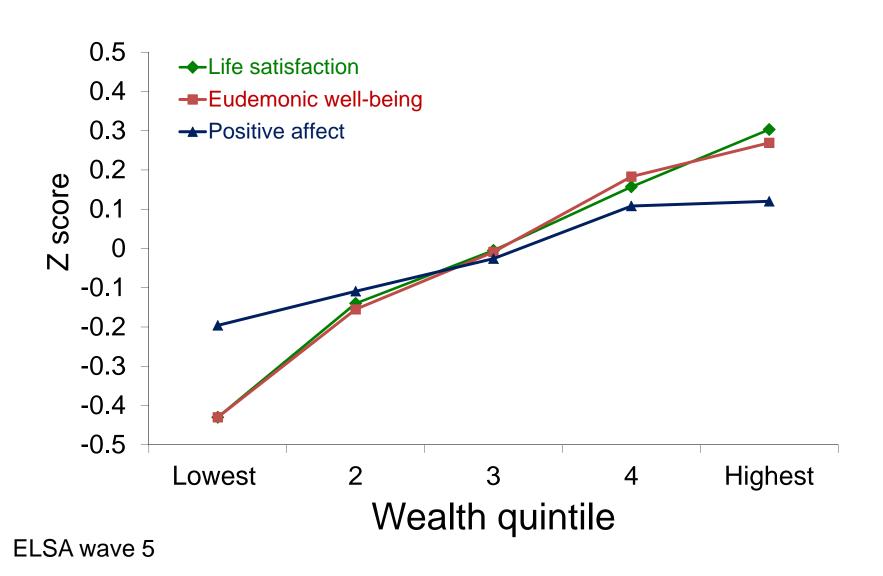


Psychological wellbeing and income



Kahneman & Deaton 2010, PNAS

Psychological wellbeing and wealth



Correlates of Psychological Wellbeing

Marital status: Highest wellbeing among married participants, lowest in widowed

Employment: Higher wellbeing in the employed, and among volunteers

Health and disability: Lower wellbeing in people with limiting long-standing illness, mobility impairment, cardiovascular illness

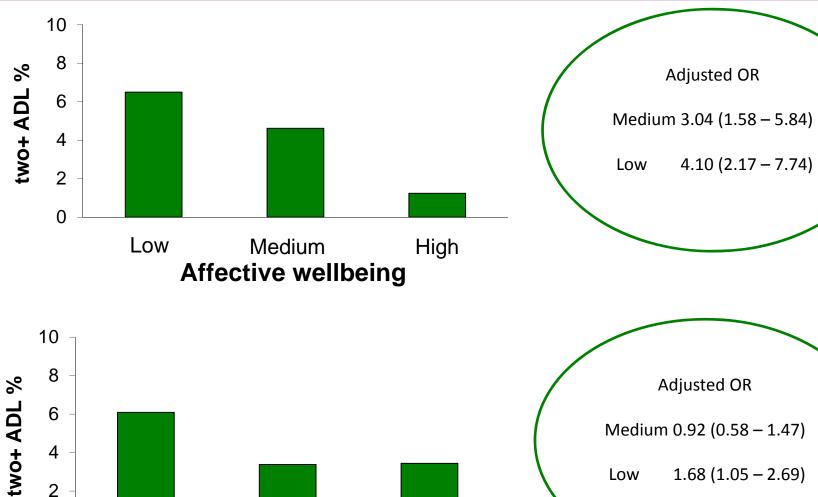
Physical activity: Greater wellbeing in physically active respondents across the age range



Psychological wellbeing and health outcomes

- Wellbeing and the prediction of the development of health problems and disability over 6 years
- Wave 2 (2004/5) assessments of wellbeing and baseline function
- Development of impaired activities of daily living, reduced walking speed, impaired cognitive function, poor self-rated health and coronary heart disease in wave 5 (2010/11)
- Adjustment for age, sex and wealth

Wellbeing and new ADL disability



Medium

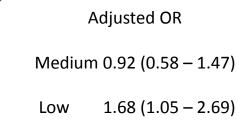
Life satisfaction

High

2

0

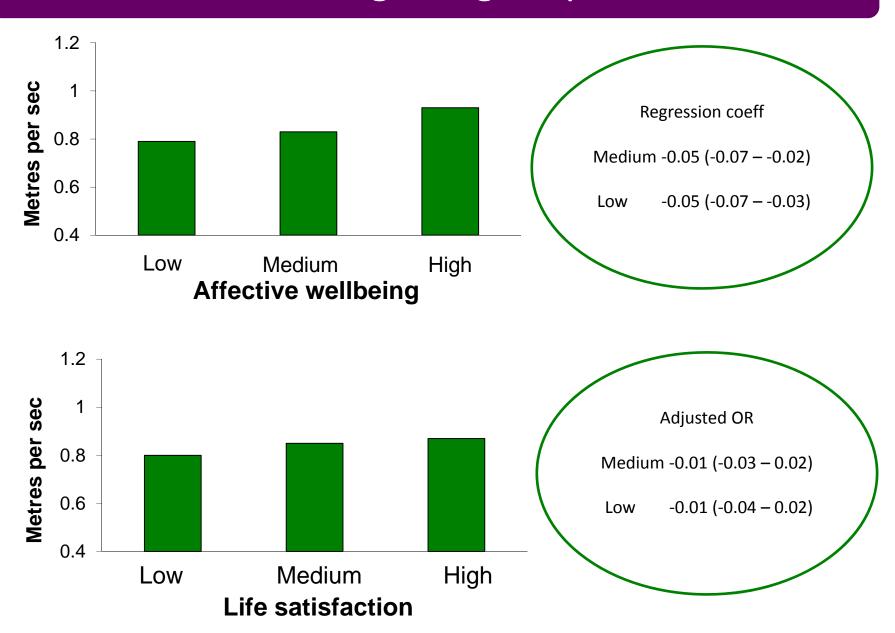
Low

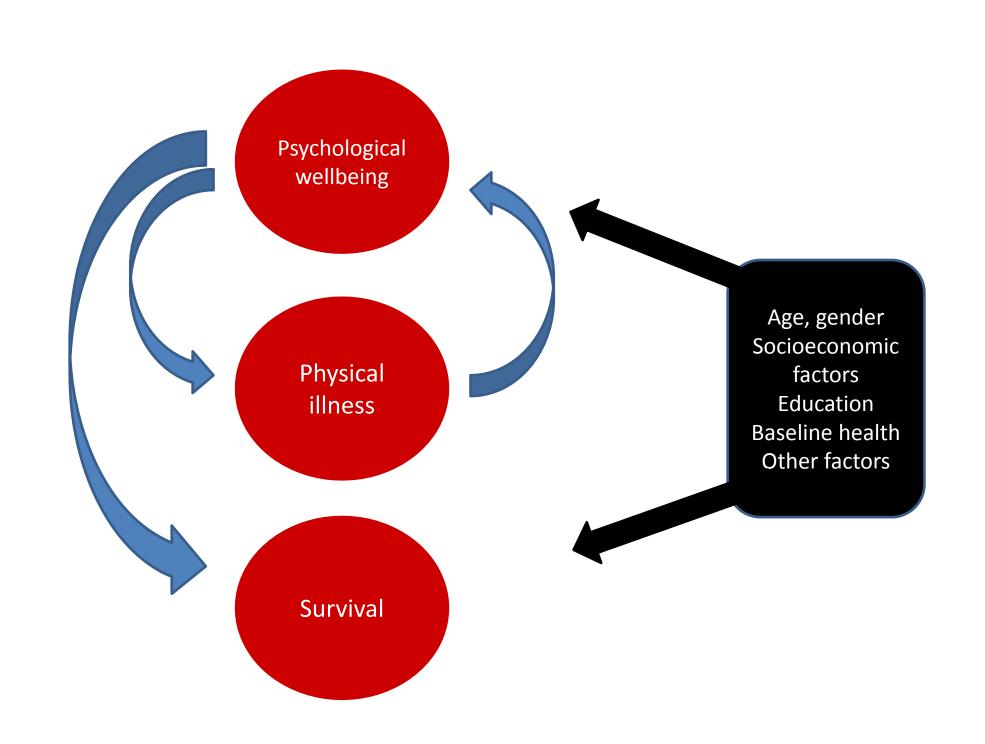


Wellbeing and incident CHD



Wellbeing and gait speed







Biol. Lat. doi:10.1098/rsbl.2011.0543

Published online

Animal behaviour

Happy orang-utans live longer lives

Alexander Weiss^{1,*}, Mark J. Adams¹ and James E. King²

¹Department of Psychology, School of Philosophy, Psychology and Language Sciences, The University of Edinburgh, 7 George Square, Edinburgh EH8 9JZ, UK

²Department of Psychology, The University of Arizona, Tucson, AZ 85701, USA

^{*}Author for correspondence (alex.weiss@ed.ac.uk).

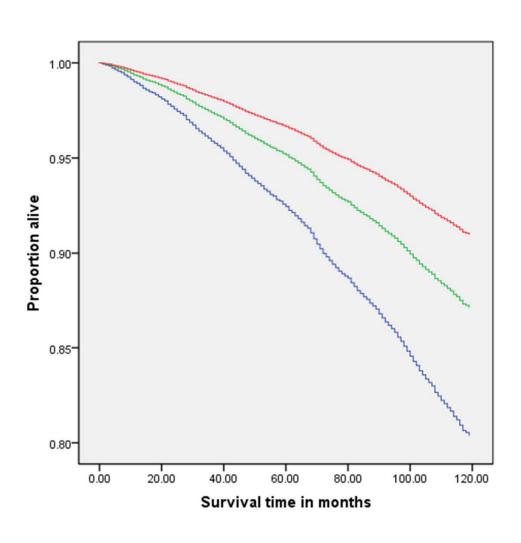
Psychological wellbeing and mortality

- Baseline measures of health and standard risk factors in a large cohort
- Measure of exposure to factor being tested (psychological wellbeing)
- Tracking of sample prospectively for mortality and morbidity
- Multivariate analysis of predictors, testing for independent association with wellbeing

Enjoyment of life and survival in ELSA

- 9,025 core members of ELSA (aged 50+) followed for 9 years, 5 months
- 1,785 dated fatalities
- Enjoyment of life from CASP19
 - ►I enjoy the things that I do
 - > I enjoy being in the company of others
- Cox proportional hazards regression

Enjoyment of life and survival in ELSA



Deaths

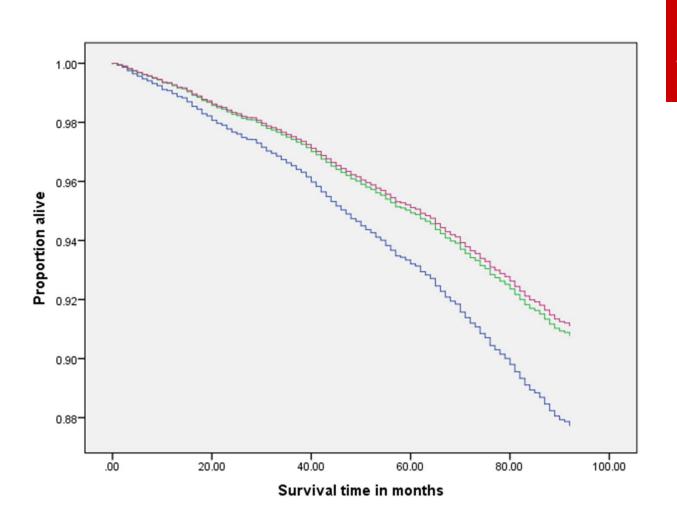
Lowest enjoyment: 28.8% Second: 18.7% Highest enjoyment: 9.9%

Age,gender: HR 0.43 (.37 - .51)

+ demographics & health indicators HR 0.63 (.53 - .75)

+ depression and health behaviour HR 0.70 (.58 - .84)

Life satisfaction and survival in ELSA



Deaths

Lowest satisfaction: 17.4% Second: 13.5% Highest satisfaction: 13.1%

> Age,gender: HR 0.69 (.60 - .80)

+ demographics & health indicators HR 0.86 (.74 – 1.00)

+ depression and health behaviour HR 0.91 (.77 – 1.06)

Further developments

Measurement of wellbeing

Recollected wellbeing

Standard questionnaire measures

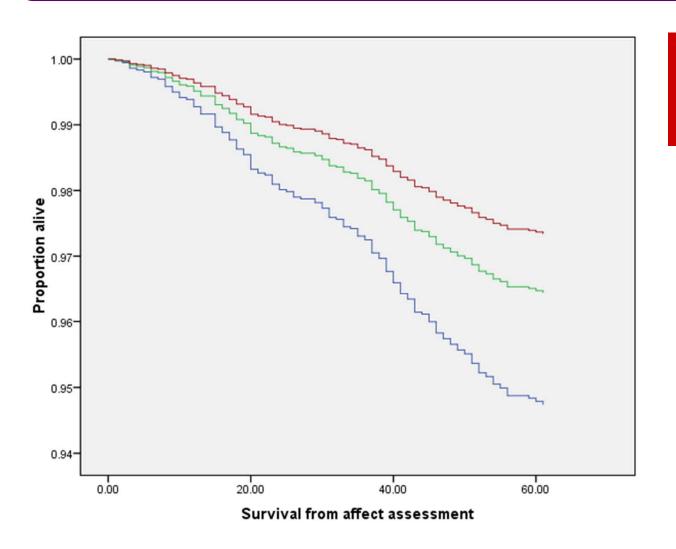
Experienced wellbeing

- Ecological momentary assessment
- Day reconstruction method

Ecological momentary assessment

- 4,732 participants in wave 2 (data from 4,258, 90%)
- Mean age 64.39, range 52 79
- Four assessments
 - Waking
 - 30 minutes after waking
 - > 7:00 pm
 - Bedtime
- 4-point ratings (1 = not at all; 4 = extremely)
 - > Happy, excited, content
 - Anxious, worried, fearful
 - > Tired

EMA positive affect and survival in ELSA



Deaths

Lowest PA: 7.3% Second: 4.6% Highest PA: 3.6%

Age,gender: HR 0.50 (.35 - .72)

+ demographics & health indicators HR 0.56 (.38 - .82)

+ depression and health behaviour HR 0.65 (.44 - .96)

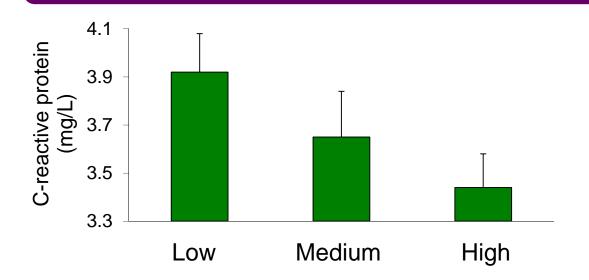
Further developments

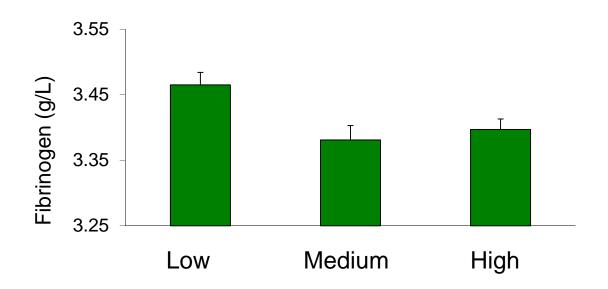
Measurement of wellbeing

Mechanisms

- Lifestyle factors
- Biological processes

Affective wellbeing and inflammation in women





Adjusted for age, marital status, wealth, BMI, smoking status, limiting longstanding illness, arthritis, coronary heart disease, lipid medication, and depression

Further developments

Measurement of wellbeing

Mechanisms

Significance

 Is wellbeing a mechanism or a marker?



Further developments

Measurement of wellbeing

Mechanisms

Significance

Causality

 Is wellbeing causally linked to future health?

Psychological wellbeing and health

- There are bidirectional associations between psychological wellbeing and health
- Poor psychological wellbeing predicts future health and functional impairments, and greater mortality risk
- The different aspects of psychological wellbeing are not interchangeable with respect to health
- Causal conclusions cannot be drawn about the associations between wellbeing and health
- Positive wellbeing needs to be taken seriously in the health context