

### 1. OVERVIEW

- Problem of the field - a misleading conclusion (correlation VS causal link & incomplete model of health)
- The paper reviews - happiness and health, depression and disease, the significance of conscientiousness across the lifespan, and suggestions for health interventions.

### 2. HEALTH OUTCOMES

- Similar items are used to access personality, health and well-being e.g. ‘relaxed’ are in both neuroticism and well-being measures.
- Neuroticism influences on self-reported health
- A self-reported health can predict physical health (Idler & Benyamini, 1997)

2.1 Longevity is the single best measure of health (high reliability and validity)

2.2 Quality of life can be measured by Healthy life expectancy & Healthy Life Years

2.3 However, we should use multiple outcomes measure: (1) physical health, (2) subjective well-being, (3) social competence, (4) productivity, (5) cognitive function and (6) longevity.

- These outcomes are often related

2.4 Biomarkers – limitation of biomarkers is that causal relationships are not usually as expected (e.g. lipid levels -> mortality). Biomarkers are best served as mediators between personality and health.

### 3. HAPPINESS, SUBJECTIVE WELL-BEING, AND HEALTH

- Positive psychology interventions (PPI) can boost happiness and well-being
- However, will PPIs lead to health and longevity?

3.1 Power of Positive Emotion

- Saturday Review (Cousins, 1979) - healing power of creativity and humor
- SWB & positive constructs related to better self-rated health around the world (Pressman et al., 2013)
- ‘whether SWB causally influences health and longevity’ the question hasn’t yet been resolved
- Longitudinal study found poor health caused low satisfaction but satisfaction could not predict health (Gana et al., 2013)

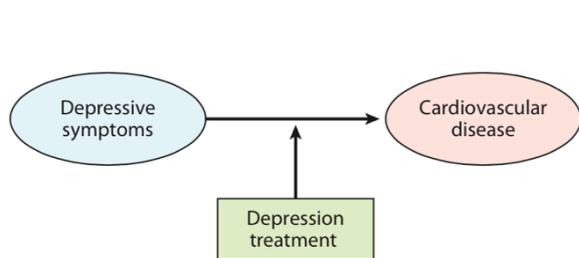
3.2 Meaning and purpose

- Importance component of (eudimonic) well-being (Ryff & Keyes, 1995)
- A meaningful life may not be happy (Baumeister et al., 2013)
- Meaning in life related to SWB (e.g. life satisfaction, self-esteem, resilience; Steger, 2012a)
- It also correlated with higher levels of A C E O, lower levels of N, depression, psychoticism
- Related to better physical health – e.g. a 5-year period, lower mortality risk (Boyle et al., 2009)
- However, fuller causal models are needed

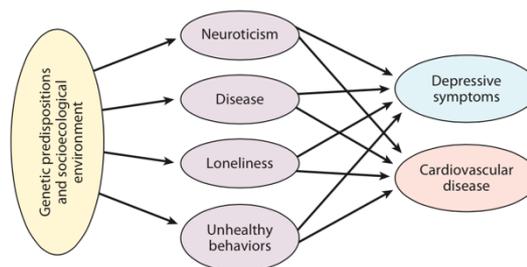
3.3 Optimism – ‘Optimistic people more likely to persevere and engage toward a goal’ but it seems to be no direct link to physical health.

### 4. NEUROTICISM, DEPRESSION, WORRY, AND DISEASE

- Unhealthy VS healthy neuroticism
- N inconsistently predicts mortality risk (high, null, protective)
- N was most predictive of SWB but least predictive of longevity (Friedman et al., 2010)



What we believed in the past



a better model

#### 4.1 Depression

- Causal link is complex. In the past we thought that depression caused cardiovascular disease but when depression was treated, cardiovascular disease was not cured.
- If an intervention influences the underlying causes of health and depression, health will be improved.

#### 4.2 Challenge and Health

- Workaholics may harm their health but work and health are often related in a positive direction.
- The US Panel study – job loss predicts risk of a new health condition, poor health leads to being fired
- Most long-lived individuals have remained physically and socially active. Research shows an association between early retirement and increased mortality risk (Bamia et al., 2008, Carlsson et al., 2012)
- Recent research suggests that certain aspects of personality do play a significant, and likely causal, role in patterns of living that lead to thriving, health, and longevity. The core trait is usually termed ‘conscientiousness’.

### 5. CONSCIENTIOUSNESS, MATURITY, AND LONGEVITY

- Lifelong importance of conscientiousness – it predicts health and longevity!
- The size of this effect is equal to or greater than that of many known biomedical risk factors
- Reasons – (1) Healthier behaviors, (2) situation selection, (3) successful, meaningful careers, better educations, and higher incomes, (4) conscientiousness often interacts with unhealthy stressors and with other unhealthy personality traits and (5) Serotonin levels

### 6. CONCLUSION: IMPLICATIONS FOR INTERVENTIONS

- The aim of the field of personality and health is to improve health & reduce mortality risk
- We do not need - correlate personality with health and SWB, or happiness -> health
- What we need is longitudinal studies of mediators and moderators. Intervention studies of how, when, and why changes in individual character affect health and well-being
- Fuller models of personality and health may help clarify causality and offer likely points for successful intervention
- Higher positive emotions, A, C are much more likely to complete research studies e.g. even in placebo, being conscientious predicted mortality risk than a medication (Horwitz et al., 1990).
- Solutions to research challenges – (1) random sample, (2) employ independent, valid, multidimensional measures of personality, (3) use the best possible experimental or quasi-experimental design, (4) employ intent-to-treat analyses (5) use multiple outcome measures
- Key contribution - the focus on healthy patterns, clusters of predictors, and pathways to health and longevity
- Terman Life Cycle Study - health risk factors and protective factors do not occur in isolation but rather bunch together.
- The three elements of healthy lifestyles are deserving of increased research attention. Many other approaches to treating depression and subjective well-being likely are not very relevant to health
  - (1) Social networks, (2) physically active, (3) self-control & conscientiousness

#### Discussion points

- What does it mean by being a healthy neurotic? How? Why? (high N and C)
- How to be conscientious? Can C significantly change?
- What would you prefer? Eudaimonic VS hedonic (a happy live or a meaningful life)

**\*References see the paper**