Positive Health

- The idea that physical health and vitality are important to the good life is one of the oldest assumptions about psychological well-being.
- The ancient Greeks believed that certain mental illnesses such as depression are caused by an imbalance of physical elements in the body, which they called the “four humors”.
- Early Christian perspectives tended to view the body as a source of temptation and sin, denigrating the “flesh” in a quest for the “spirit.”
- 19th century Romantics also emphasized the importance of emotional and physical health to well-being.
- Henry David Thoreau suggested that in order to achieve emotional well-being, one has to “first become a good animal.”
Wellness

• Years ahead of most scientists on this point, the World Health Organization’s official position in 1946 was that “health is a state of complete physical, mental, and social well-being, and not merely the absence of disease and infirmity.”

• For over 65 years, the World Health Organization has recognized that, although being disease free is a worthy goal, a state of enhanced vitality defines a more encompassing sense of well-being.
Wellness

• Although initially researchers studied physical health as a pathway to increased energy and longevity, this began to change in 1961 when Halbert Dunn coined the term “high-level wellness” to describe a state of enhanced physical and emotional well-being.

• Thereafter, the term wellness has been used to refer to states of optimal physical, mental, and emotional health.
Wellness

• For Dunn, wellness is a state in which a person has:
  • A zest for life
  • A way of living that maximizes potential
  • A sense of meaning and purpose
  • A sense of social responsibility
  • Skills for adapting to the challenges of a changing environment
Positive Health

• Ideas from earlier theories of wellness have been transformed by positive psychology into a concept of “positive health” as not merely absence of disease but as excellence in three measures: biological markers, subjective experiences, and functional abilities (Seligman, 2008, 2011).

• The goal of positive health is to describe adaptation to challenges that do not simply return a person to homeostasis but toward a better quality of life.

• This process is not just coping and adaptation but positive growth.
Positive Health

• *Biological markers* include any measures of physiological functioning that can impact health or well-being, such as cardiac or pulmonary health.

• *Subjective experiences* include any measure of subjective well-being, such as optimism, positive emotionality, energization, and sense of vitality.

• *Functional measures* include assessments of how well daily activities are accomplished and behavioral signs such as adjustment to normal aging or occasional disability.

• Positive health brings a new emphasis on empirical studies investigating health outcomes such as longevity, quality of life, health costs, and other measures of health status.
Vitality and Positive Health

- Richard Ryan and Edward Deci conceptualized vitality as the energy available to the self (Ryan & Deci, 2008), defining it as a “positive feeling of aliveness and energy” (Ryan & Frederick, 1997, p. 529).
- In their studies, they found that vitality is enhanced by activities that satisfy self-determination needs for competence, autonomy, and relatedness (Ryan & Deci, 2008).
- This finding was particularly strong when activities are intrinsically motivated (Nix, Ryan, Manley, & Deci, 1999).
Vitality and Positive Health

• Vitality is also related to better health outcomes (Ryan & Frederick, 1997) and may be a factor in longevity because of its association with autonomy (Kasser & Ryan, 1999).

• Although many studies have found that effort expended on discipline and self-control can deplete energy available to the self for other tasks (Baumeister & Vohs, 2007), Ryan and Deci (2008) found that when discipline is self-motivated, efforts lead to greater energy and vitality.
Exercise and Positive Health

- Earlier models of wellness tended to focus on physiological interventions and measures of health.
- There is still good reason for examining these measures, particularly of physical exercise.
- Numerous studies have supported the idea of regular exercise as beneficial to both physical and psychological well-being (Penedo & Dahn, 2005).
- A recent study found that physically fit adults had a greater sense of personal accomplishment and more self-efficacy (McAuley et al., 2010).
Exercise and Positive Health

• For older persons, moderate walking for 40 minutes three times a week can help improve cognitive processes and keep aging brains healthier (Voss et al., 2010).

• Other possible benefits of exercise include a greater ability to fight off colds (see Montagne, 2010), better sleep, (Reid et al., 2010), and greater self-acceptance and mindfulness (Ulmer, Stetson, & Salmon, 2010).
Exercise and Positive Health

• Most experts agree that healthy aerobic activity need not be strenuous.

• For example, the regular practice of tai chi chuan, a Chinese form of slow, gentle movement, can be beneficial to health (Gorman, 2002) and is gaining in popularity among older persons because of its less strenuous demands.

• Finally, studies in recent years have also found that the well-known “runner’s high” results from a combination of hormonal factors and is not simply due to the release of endorphins (Dietrich & McDaniel, 2004).
Vagal Tone and Heart Rate Variability (HRV)

• For thousands of years, poets have written about the heart as a metaphor for love, connection, and compassion.

• Strikingly, the physiology of the heart is among the most intriguing research areas in wellbeing studies.

• Stephen Porges at the University of Illinois-Chicago has introduced polyvagal theory, which hypothesizes that activity of the vagus nerve to the heart is involved in social behavior (Proges, 2001, 2007).
Vagal Tone and Heart Rate Variability (HRV)

- When the vagus nerve to the heart is functioning well, our heart rates show more variability in response to several different social and interpersonal situations.
- *Polyvagal theory* and the *neurovisceral integration model* (Hagemann, Waldstein, & Thayer, 2003) both postulate connections between parasympathetic processes and an ability to self-regulate.
- High heart rate variability (HRV) can serve as an index of self-regulatory strength.
- Indeed, several studies have found that better HRV is associated with greater ability to regulate one’s thoughts, emotions, and behaviors (Segerstrom, Smith, & Eisenlohr-Moul, 2011).
Vagal Tone and Heart Rate Variability (HRV)

• People with high HRV experience more positive emotions and feel more socially connected (Kok & Fredrickson, 2010).

• McCraty and Rees (2009) suggested that sustained positive emotions can help generate congruence among the emotional, cognitive and physiological systems, creating a state of “psychophysiological coherence.”

• HRV can be increased by physical exercise; yoga; meditation; and positive self-relevant feedback (Sunkaria, Kumar, & Saxena, 2010; Segerstrom, Smith, & Eisenlohr-Moul, 2011).
The Heart’s Content: The Association Between Positive Psychological Well-Being and Cardiovascular Health

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This review investigates the association between positive psychological well-being (PPWB) and cardiovascular disease (CVD). We also consider the mechanisms by which PPWB may be linked with CVD, focusing on the health behaviors (e.g., smoking, alcohol consumption, physical activity, sleep quality and quantity, and food consumption) and biological functions (e.g., cardiovascular, inflammatory, and metabolic processes) that are most relevant for cardiovascular health. Because PPWB is a broad concept, not all aspects of PPWB may be associated with cardiovascular health. Thus, we distinguish between eudaimonic well-being, hedonic well-being, optimism, and other measures of well-being when reviewing the literature. Findings suggest that PPWB protects consistently against CVD, independently of traditional risk factors and ill-being. Specifically, optimism is most robustly associated with a reduced risk of cardiovascular events. In general, PPWB is also positively associated with restorative health behaviors and biological function and inversely associated with deteriorative health behaviors and biological function. Cardiovascular health is more consistently associated with optimism and hedonic well-being than with eudaimonic well-being, although this could be due in part to more limited evidence being available concerning eudaimonic well-being. Some similarities were also evident across different measures of PPWB, which is likely due to measurement overlap. A theoretical context for this research is provided, and suggestions for future research are given, including the need for additional prospective investigations and research that includes multiple constructs of psychological well-being and ill-being.

Keywords: cardiovascular disease, health behaviors, biological function, eudaimonic well-being, hedonic well-being
Cardiovascular Health

Optimism and Cardiovascular Health: Multi-Ethnic Study of Atherosclerosis (MESA)

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Objectives: We examined the association between optimism and cardiovascular health (CVH). Methods: We used data collected from adults aged 52-84 who participated in the Multi-Ethnic Study of Atherosclerosis (MESA) (N = 5134) during the first follow-up visit (2002-2004). Multinomial logistic regression was used to examine associations of optimism with ideal and intermediate CVH (with reference being poor CVH), after adjusting for socio-demographic factors and psychological ill-being. Results: Participants in the highest quartile of optimism were more likely to have intermediate [OR = 1.51, 95% CI = 1.25, 1.82] and ideal [OR = 1.92, 95% CI = 1.30, 2.85] CVH when compared to the least optimistic group. Individual CVH metrics of diet, physical activity, body mass index, smoking, blood sugar, and total cholesterol contributed to the overall association. Conclusions: We offer evidence for a cross-sectional association between optimism and CVH.

Key words: well-being; optimism; cardiovascular health

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“Psychological Language on Twitter Predicts County-Level Heart Disease Mortality”
(Johannes Eichstaedt et al., 2015)

• “Hostility and chronic stress are known risk factors for heart disease, but they are costly to assess on a large scale. We used language expressed on Twitter to characterize community-level psychological correlates of age-adjusted mortality from atherosclerotic heart disease (AHD). Language patterns reflecting negative social relationships, disengagement, and negative emotions—especially anger—emerged as risk factors; positive emotions and psychological engagement emerged as protective factors. Most correlations remained significant after controlling for income and education. A cross-sectional regression model based only on Twitter language predicted AHD mortality significantly better than did a model that combined 10 common demographic, socioeconomic, and health risk factors, including smoking, diabetes, hypertension, and obesity. Capturing community psychological characteristics through social media is feasible, and these characteristics are strong markers of cardiovascular mortality at the community level.”
“Psychological Language on Twitter Predicts County-Level Heart Disease Mortality” (Johannes Eichstaedt et al., 2015)
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Fig. 3. Map of counties in the northeastern United States showing age-adjusted mortality from atherosclerotic heart disease (AHD) as reported by the Centers for Disease Control and Prevention (CDC; left) and as estimated through the Twitter-language-only prediction model (right). The out-of-sample predictions shown were obtained from the cross-validation process described in the text. Counties for which reliable CDC or Twitter language data were unavailable are shown in white.