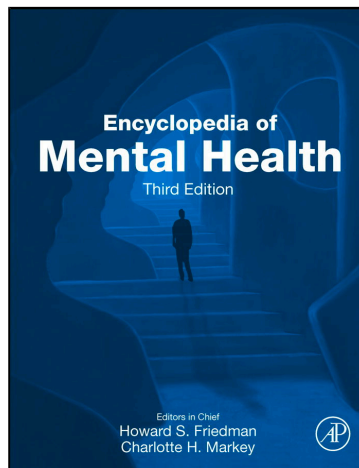


Provided for non-commercial research and educational use.
Not for reproduction, distribution or commercial use.

This article was originally published in Encyclopedia of Mental Health, published by Elsevier, and the attached copy is provided by Elsevier for the author's benefit and for the benefit of the author's institution, for non-commercial research and educational use including without limitation use in instruction at your institution, sending it to specific colleagues who you know, and providing a copy to your institution's administrator.



All other uses, reproduction and distribution, including without limitation commercial reprints, selling or licensing copies or access, or posting on open internet sites, your personal or institution's website or repository, are prohibited. For exceptions, permission may be sought for such use through Elsevier's permissions site at:

<https://www.elsevier.com/about/our-business/policies/copyright/permissions>

Ryff, C.D., 2023. A new direction in mental health: purposeful life engagement. In: Friedman, H.S., Markey, C.H. (Eds.), Encyclopedia of Mental Health, vol. 2. Elsevier, Academic Press, pp. 629–637. <https://dx.doi.org/10.1016/B978-0-323-91497-0.00096-5>.

ISBN: 9780323914970

Copyright © 2023 Elsevier Inc. All rights reserved
Academic Press

A new direction in mental health: purposeful life engagement

Carol D. Ryff, Institute on Aging/Department of Psychology, University of Wisconsin-Madison, Madison, WI, United States

© 2023 Elsevier Inc. All rights reserved.

Introduction	629
Defining and measuring purposeful life engagement	630
Conceptual underpinnings	630
Empirical operationalization	630
Select empirical findings on purposeful life engagement	630
Initial evidence of age decline	630
Purposeful life engagement and health	631
Preventive health behaviors and functional capacities	631
Physiology and the brain	631
Purposeful life engagement and risk of disease	631
Purposeful living and length of life	632
Obstacles to purposeful life engagement: widening inequality	632
Nourishing purposeful life engagement: encounters with the arts and humanities	633
Purposeful life engagement and virtue	634
Concluding points	634
References	635

Key points

- Present purposeful life engagement as an important indicator of positive mental health.
- Summarize the conceptual and philosophical foundations of purposeful life engagement.
- Highlight emerging evidence on the health benefits of purposeful life engagement.
- Consider growing inequality as an obstacle to purpose in life and meaning among the disadvantaged.
- Consider the arts and humanities as influences that may help cultivate life purpose and meaning.
- Bring virtue and ethics to thinking about the content of purposeful life engagements.

Abstract

Historically, mental health research and practice has focused primarily on mental illness or distress. In such a framework, health usually means the *absence of the negative*. It is increasingly recognized, however, that mental health must also encompass the *presence of the positive*. One aspect of positive functioning receiving growing attention is purposeful life engagement: perceiving that one's life has direction and meaning. The conceptual and philosophical foundations of this aspect of well-being are examined, followed by a look at select empirical findings, including how purpose in life is linked in beneficent ways to multiple aspects of health (biological risk factors, preventive health behaviors, brain-based regulation of emotion, morbidity, and mortality). Such evidence underscores the need to sharpen understanding of factors that undermine or nurture purpose in life. Growing inequality is an obstacle to purposeful engagement that brings social structural influences on mental health to the fore. Alternatively, the arts and humanities, increasingly studied for their positive effects on health, are influences that may help cultivate life purpose and direction. Unique among mental health indicators, purposeful life engagement invokes virtue and ethics, thereby elevating issues of social justice and responsibility that need attention in our current world.

Introduction

Mental health means more than not being psychologically disordered or distressed. It also includes diverse aspects of positive psychological functioning. Novel among such positives in current research and practice is purposeful life engagement. The first section below summarizes conceptual and philosophical underpinnings of this unique human strength and briefly describes how it is measured in ongoing scientific studies. Select empirical findings are then noted, such as evidence that purpose in life declines with aging. Some individuals, however, retain high purposeful engagement as they grow old, and those who do show multiple health benefits, including better health behaviors, lower profiles of physiological risk, better brain-based regulation of emotion, reduced levels of chronic conditions (morbidity), and greater longevity (mortality).

The next section considers obstacles to purpose in life, specifically, ever-widening inequalities, now worsened by the pandemic. A key concern going forward is whether purposeful engagement will increasingly become the purview of privileged segments of society. In counterpoint, how purpose and meaning might be nurtured by the arts and humanities is considered. Increasing work now links these domains to better health. A final section brings emphasis to the *content* of purposeful life engagements. As formulated by Aristotle, the highest of all human goods, something he called eudaimonia, is about activities of the soul that are in accord with virtue. Human history offers dramatic exemplars of benevolent as well as malevolent life purpose, thereby underscoring the importance of “virtuous doing” as key, not only for personal mental health, but also for the well-being of others in work and family life, surrounding communities, and society at large.

Defining and measuring purposeful life engagement

Conceptual underpinnings

Psychological well-being encompasses multiple aspects of positive functioning (Ryff, 1989, 2018; Ryff and Singer, 2008), although the focus here is on purpose in life. What are its conceptual origins? One part draws on a major existential work, *Man's Search for Meaning*, wherein Victor Frankl (1959) described his three-year ordeal in Nazi concentration camps. Read by millions around the world, Frankl's core insight was that finding meaning and purpose in the face of horrific adversity could be life sustaining. He subsequently developed logotherapy to help people find meaning and purpose in their suffering. Creating meaning and direction in life was also fundamental to living authentically according to Sartre (1956). Less focused on darkness, Russell (1958) emphasized zest, which encompassed active engagement and having a reflective stance toward life. Jahoda (1958) offered multiple definitions of mental health, one of which involved having beliefs that give one a sense of purpose and meaning. Allport's (1961) conception of maturity included having a clear comprehension of life's purpose, defined as a sense of directedness and intentionality. Finally, life-span developmental theories (Bühler and Massarik, 1968; Erikson, 1959) referred to the changing purposes or goals that characterize different life stages, such as being creative or productive in midlife, and turning toward emotional integration in later life. Taken together, these distant formulations repeatedly emphasized purpose and meaning as fundamental to a well-lived life.

Empirical operationalization

Without empirical operationalization, the above ideas about purposeful life engagement were not empirically tractable. My contribution was to provide a model of psychological well-being (Ryff, 1989) that defined multiple aspects of positive functioning drawn from prior formulations in clinical, developmental, existential, and humanistic psychology. The key definitions of purpose in life in this integrative framework, which was used to generate self-descriptive items to measure the construct, is as follows:

high scorer → has goals in life and a sense of directedness; feels there is meaning to present and past life; hold beliefs that give life purpose; has aims and objectives for living

low scorer → lacks a sense of meaning in life; has few goals or aims, lacks sense of direction; does not see purpose of past life; has no outlook or beliefs that give life meaning

Items for the purpose in life scale, along with five other dimensions of well-being (autonomy, environmental mastery, personal growth, positive relations with others, self-acceptance) went through extensive psychometric evaluation (described in Keyes et al., 2002; Ryff, 1989, 2014). The resulting scales of positive mental health have been translated to 40 different languages, from which more than 1300 publications have been generated. What follows in the next section is a brief look at some empirical findings that have grown up around purpose in life. Before shifting to emerging science, it is important to note that the study of meaning and purpose includes other perspectives and measures as well, such as work by Steger (2021). His most recent framework sees meaning as a superordinate category that is composed of construing one's life as worthwhile and significant, comprehensible and making sense, and marked by pursuit of one or more highly valued purposes. Stated otherwise, what follows reflects one, but not the only, formulation and measurement of purpose in life now under study.

Select empirical findings on purposeful life engagement

Initial evidence of age decline

Initial cross-sectional comparisons of purpose in life among young, middle, and older aged adults showed declining trajectories with age (Clarke et al., 2000; Ryff, 1989; Ryff and Keyes, 1995). Subsequent longitudinal studies, some with representative national samples, continued to document that purpose in life declines as individuals grow older (Hill and Weston, 2019; Springer et al., 2011). One interesting question is why such later life decline in this aspect of psychological well-being occurs. Some suggest that the notable gains in life expectancy over the last 100 years (Martin et al., 2013) have not been accompanied by opportunities for older adults to remain actively engaged. Riley et al. (1994) describe this as a “structural lag” problem, which asserts that core

societal institutions (family, work, education, healthcare) have not kept up with the added years of life many now experience. Stated otherwise, societal norms, values, and laws have not adapted to the current realities of older adults, many of whom are more physically and cognitively healthy than were elders from prior eras. However, recent findings have shown notable variability within age groups—although average levels of purpose may decline with age, some are nonetheless able to maintain a high sense of purpose well into later life, and those that do appear to be reaping notable health benefits.

Purposeful life engagement and health

Different aspects of mental distress have been linked with physical health, thus underscoring the view that prolonged psychological disorders can impair physical outcomes. Purpose in life is now underscoring the contrasting story—namely, how persistent psychological strengths may be protective of good health. Such findings, which are emerging from major longitudinal studies (e.g., Health and Retirement Study (HRS), Midlife in the US study (MIDUS), Rush Memory and Aging Project (MAP)) (see Ryff and Kim, 2020). Collectively, they draw attention to positive mental health, broadly conceived.

Preventive health behaviors and functional capacities

Higher sense of purpose has been associated with better health behaviors. Kim et al. (2014) showed that higher purpose predicted subsequent preventive behaviors, such as getting doctor check-ups, cholesterol tests, and cancer screenings. Higher purpose has been linked with better sleep quality (Hill et al., 2019; Kim et al., 2015; Turner et al., 2017). Evidence for smoking is mixed although some studies have shown that higher purpose is associated with less smoking (Lappan et al., 2018; Steptoe and Fancourt, 2019). High purpose in life predicted reduced likelihood of future drug misuse (Kim et al., 2020). With regard to functional capacities, Hooker and Masters (2016) showed a positive link between purpose in life and physical activity measured by accelerometer, while Kim et al. (2017) found that purpose in life was associated with decreased risk of developing weak grip strength and slow walking speed. All of these inquiries adjusted for numerous covariates.

Physiology and the brain

Many findings have linked purpose in life with diverse physiological assessments. Zilioli et al. (2015) found that higher purpose in life at baseline predicted lower allostatic load, a summary index of risk across multiple systems, 10 years later. Friedman and Ryff (2012) found that purpose in life and positive relations with others moderated links between comorbidity (number of chronic conditions) and markers of inflammation (interleukin-6, C-reactive protein). Among those with high comorbidity, higher purpose and quality ties to others buffered against elevated levels of IL-6 and CRP, thereby reducing subsequent risk of more severe comorbidity. Boylan and Ryff (2015) used longitudinal data to show that a eudaimonic composite that included purpose in life predicted lower risk for metabolic syndrome. Hafez et al. (2018) found links between purpose in life and better glucose control. Purpose in life and other aspects of well-being buffered against elevated levels of IL-6 (an inflammatory marker implicated in multiple disease outcomes) among those with low educational status, known from prior studies to predict elevated levels of IL-6 (Morozink et al., 2010). Again, these studies adjusted for multiple covariates.

Purpose in life has also been linked with a pattern of gene expression pattern known as the conserved transcriptional response to adversity (CTRA), thought to result from experiencing stress and accompanying activation of stress hormones. This pattern triggers increased transcription of genes involved in inflammation. One study found a strong link between a higher purpose in life and *down-regulation of CTRA gene expression*, after adjusting for health conditions and other confounders (Cole et al., 2015). Higher purpose was thus tied to a healthier pattern of CTRA gene expression.

Brain-based studies have shown that purposeful engagement is linked with healthy brain function (Ryff et al., 2016). Those with higher purpose in life showed more rapid recovery (indexed with the eye-blink startle reflex) after acute negative provocation (exposure to negative stimuli in the laboratory) (Schaefer et al., 2013). Such findings suggest that purpose in life may promote resilience and protect against harmful impacts of negative events by enhancing emotion regulatory processes. van Reekum et al. (2007) used functional MRI techniques to show that those with higher psychological well-being, including purpose in life, had less amygdala activation in response to negative stimuli as well as more activation of regions (ventral anterior cingulate cortex) that help regulate emotions. Heller et al. (2013) observed sustained activation of reward circuitry (striatal activity) in response to positive stimuli among those with higher eudaimonic well-being, including sense of purpose. This pattern was further linked with lower cortisol output over the course of the day. Finally, eudaimonic well-being (particularly for purpose in life, personal growth, and positive relations with others) has been positively linked with insular cortex volume (Lewis et al., 2014), important for numerous functions (self-awareness, emotion, empathy, control over bodily states) vulnerable to deterioration with age.

Purposeful life engagement and risk of disease

Among the earliest findings linking purpose in life to morbidity Boyle et al. (2010) found that those with higher purpose in life at baseline showed reduced risk for Alzheimer's disease and mild cognitive impairment six years later, after adjusting for depressive symptoms and chronic conditions. Post-mortem analyses further clarified that purpose in life modified the associations between organic disease pathology (neurofibrillary tangles) and cognitive function when participants were still alive (Boyle et al., 2012). At high levels of brain pathology, those with higher levels of purpose in life showed higher cognitive function relative to those with lower levels of purpose. Yu et al. (2015) showed that purpose in life was associated with 50% reduced risk of cerebral infarcts.

Additional findings among those with coronary heart disease show reduced risk of myocardial infarction two years later among those with higher purpose in life (Kim et al., 2013a). Related work showed that higher purpose in life was linked with reduced risk of stroke four years later (Kim et al., 2013b), while findings from the Australian Longitudinal Study of Aging showed that purpose in life was associated with less functional disability as well as better performance on cognitive tests and lower depressive symptomatology (Windsor et al., 2015).

Purposeful living and length of life

Evidence that purpose in life matters for longevity first emerged from the MAP study, showing substantially reduced mortality 6 years later among those with higher purpose in life at baseline (Boyle et al., 2009). Analyses from MIDUS (Hill and Turiano, 2014) found that those with higher purpose lived longer over a 14-year period. Findings from HRS (Alimujiang et al., 2019) showed that those with higher purpose in life had reduced risk of all-cause mortality and reduced risk of mortality from heart, circulatory, and blood conditions, after adjusting for sociodemographics, health behaviors, and other aspects of psychosocial well-being and distress.

Finally, a meta-analysis of ten prospective studies showed reduced risk of mortality among people with a higher sense of purpose (Cohen et al., 2016). All studies were longitudinal and controlled for key confounders (demographics, physical health, psychological distress). Most used validated multi-item purpose in life assessments. The meta-analysis also showed lower relative risk of cardiovascular events among those with higher purpose in life after adjusting for demographics, cardiovascular risk factors, and psychological distress.

In sum, in little over a decade extensive evidence has emerged from diverse high-quality, longitudinal studies that higher purposeful in life prospectively predicts better health behaviors and functional capacities, lower physiological risk and better brain-based emotion regulation, down regulation of CTRA gene expression, lower risk of multiple disease outcomes, and greater longevity. Such work emerged from rigorous analyses controlling for multiple covariates. Taken together, these results underscore the importance of investigating factors that nurture or undermine purposeful life engagement. The next topic considers widening inequality as an obstacle to living a life of purpose.

Obstacles to purposeful life engagement: widening inequality

Growing inequality likely constitutes a social structural impediment to the human capacity for purposeful engagement in life. Implicated are disparities in life opportunities for higher education, well-paying jobs, and meaningful employment. Economic inequality has been deepening in recent years, especially in the US. The Great Recession of 2007 to 2009 radically increased rates of poverty (Bishaw, 2013). The largest declines in wealth occurred among low SES individuals and minorities (Pfeffer et al., 2013), with less educated adults experiencing more economic hardships and having greater difficulty recovering (Carnevale et al., 2016; Hoynes et al., 2012). Annual income growth has been unequally distributed in recent years (Piketty et al., 2018). Other evidence documents the consequences of job loss, unemployment, financial strain and Recession hardships on health (Burgard and Kalousova, 2015).

When comparing the US and Europe, Reeves (2017) describes “hoarding” of the American dream: the top 20% of income earners have privileged access to better education, jobs, income, and wealth as well as greater likelihood of benefiting from stable marriages to successful partners, thriving neighborhoods, and healthier lifestyles. Graham (2017) linked discrepancies in economic and life opportunities to compromised levels of optimism, life satisfaction, and happiness among disadvantaged segments of society. Other findings implicated these factors in the opioid epidemic and increased “deaths of despair” (Case and Deaton, 2015) among middle-aged whites. A diminished sense of purpose in life may be part of the growing malaise experienced by those who are disadvantaged. Meaning and purpose are known to be linked with reduced risk of suicide (Heisel et al., 2016; Kinnier et al., 1994; Kleiman and Beaver, 2013).

Extensive work from MIDUS has documented health inequalities (Kirsch et al., 2019), such as declining mental health over time (including well-being), among disadvantaged Americans (Goldman et al., 2018), many of whom report heightened perceptions of economic distress (Glei et al., 2019). Kirsch and Ryff (2016) showed that among educationally disadvantaged adults who experienced greater hardships from the Recession, psychological factors usually considered strengths, including purpose in life, sense of control, and conscientiousness, were transformed into vulnerabilities. That is, protective mental health factors became “disabled” (Shanahan et al., 2014) when the stresses of inequality overpowered what would otherwise be valuable protective resources. Critical going forward is whether purposeful life engagement will be ever more sequestered among the privileged.

The pandemic, from which over a million people died in the US and nearly six million worldwide, has exacerbated these concerns. Importantly, the trauma has been disproportionately borne by those who were already vulnerable. US evidence showed that the economic fallout of COVID-19 hit lower-income Americans the hardest (Pew Research Center, 2020): they had more trouble paying bills, including rent and mortgages, and were more likely to use foodbanks than upper income adults. Serkez (2021) further documented that Americans have not suffered equally: those with low incomes and limited wealth experienced much greater loss of employment, did not have enough to eat, and regarding child-rearing, showed less progress in online math coursework compared to those with high incomes. New data from the American heartland shows clear educational and racial disparities in housing insecurity, food insecurity, financial insecurity, and unemployment (Perry et al., 2021), a phenomenon called “pandemic precarity.”

How are these broad historical changes relevant for mental health? With regard to indicators of distress (depression, anxiety), they underscore the importance of attending to structural factors (socioeconomic hierarchies, racial disparities), in addition to proximal factors (genetic vulnerability, biological risk, proximal stress exposures) that may influence these outcomes. Structural disadvantage that thwarts basic human needs likely fuels emotional distress. Alternatively, with regard to positive mental health, a key point is that critical components of well-being, such as purposeful life engagement, may be compromised among segments of society deprived of the opportunities and resources needed to make the most of their talents and capacities. These pernicious societal forces demand greater attention in mental health research, practice, and policy.

This is a call to build bridges between prior research on social stratification (e.g., Chetty et al., 2017; Sewell et al., 1976, 2004), which documents the role of higher education in achieving high status and income with deeper questions about the content and substance of higher education—namely, what is it for? Does higher education foster meaningful, well-lived lives (Ryff, 2019), including those rich in civic engagement and social responsibility? These ideas segue to the next topic below, namely, how the arts and humanities, central domains of education envisioned by key figures in American history, such as Thomas Jefferson, Ralph Waldo Emerson, and W. E. B. Dubois (Roth, 2014), provide learning and knowledge needed to improve private and public lives. Liberal learning in the American tradition is unique for its commitment to nurturing human development and human freedom, rather than training primarily to perform a particular task.

Nourishing purposeful life engagement: encounters with the arts and humanities

Recent endeavors point to the beneficent impact of the arts and humanities, broadly defined, on well-being and health. In 2013, the Royal Society for Public Health in the United Kingdom published “The Arts, Health, and Well-Being,” a report that summarized the benefits of philosophy, theology, literature, music, poetry, and film for human health. The report also distilled the role played by the arts in therapy, healthcare, community life, and professional education (medical training). A new field called “health humanities” (Crawford et al., 2015) emerged that examines applications of the arts, literature, languages, history, philosophy, and religion in promoting health and well-being. A new journal, *Arts and Health*, was launched in 2009. Embracing a global perspective, the World Health Organization initiative issued a synthesis report (Fancourt and Finn, 2019) summarizing evidence on the role of the arts in improving health and well-being in many countries.

How might engagement with the arts foster purpose and meaning? Illustrative answers come from those who teach great literature and poetry. Harold Bloom, in *How to Read and Why* (2000), contends that these realms strengthen the self, help one find authentic interests, clear the mind of cant (dogma), and foster a sense of the ironic. Mark Edmondson, in *Why Read?* (2004), asserts that vitality is nurtured by immersing one’s self in great literature and poetry, even though educators in the humanities shy away from such teaching and focus instead on critical thinking skills. In his view, such efforts teach a disassociation of intellect from feeling—e.g., deconstructionism clears away but offers nothing in return. In a world of ceaseless stimuli from the internet, he sees no better way to help young people learn how to pursue meaningful lives than to probe great literary works. The point is not to cheer one’s self up, but to pursue truth. Edmondson invokes the philosopher Richard Rorty who recommends creating narratives about personal lives that help justify actions and beliefs as well as articulate highest hopes and deepest doubts.

Edmondson illustrates via Wordsworth’s famous poem, “Lines Composed a Few Miles from Tintern Abbey” (1798). The poet’s life had become flat—“he lived in a din-filled city, among unfeeling people, and sensed that he is becoming one of them ... there is a dull ache settling in his spirit” (p. 57). Returning to a scene from his childhood, he remembered himself as a young boy, free and reveling in nature. The return to nature, which is the heart of the poem, reminds him of its role in nurturing his own vitality. “Wordsworth’s poem enjoins us to feel that it (the answer to one’s despondency) lies somewhere within our reach—we are creatures who have the capacity to make ourselves sick, but also the power to heal ourselves” (p. 49).

Wordsworth’s poetry served a vital function in the life of Mill (1893/1989), who became depressed in early adulthood because he lacked the central aim of utilitarian philosophy, namely, happiness. Reflecting on his life, Mill described an early educational experience that was exceptional, but profoundly deficient. His father began teaching him Greek and Latin at a young age and then expanded the pedagogy to fields of philosophy, science, and mathematics. His father was deeply opposed to anything involving sentiment or emotion. To escape the logic machine he had become, Mill began a quest to feel, and it was the poetry of Wordsworth, mostly about nature, that ministered deeply to the longings in his soul. He credited it for helping him recover from the crisis in his mental history.

Given the widespread suffering of our era, it is relevant to ask whether the arts and humanities might play a role in nurturing compassion and caring, particularly among the privileged. Contemporary film (e.g., *The Florida Project*, *American Honey*, *Paterson*, *Parasite*, *Nomadland*) provides multiple examples of the lived experience of inequality, including descending into prostitution to feed a child, growing up with addicted parents, having dreams of self-realization stymied, experiencing homelessness, and working in physically-difficult, mind-numbing jobs. These works portray the poetry in disadvantaged lives as well, including cleverness and resourcefulness vis-à-vis insensitive elites. These artistic domains are relevant for thinking about mental health in different segments of society. Whether such inputs challenge complacency or indifference, or worse, rapacious self-interest among those who are not suffering is an important question. It elevates themes of social justice in ongoing research, while reaching toward the arts as venues for mobilizing individual and societal action. The unique importance of connecting purposeful life engagement with virtue is covered next.

Purposeful life engagement and virtue

Given the societal ills around us, *virtuous purpose* emerges as an imperative of our time – a call for meaningful engagements that benefit not just individuals, but the worlds in which they are embedded (family, work, community) and the societies of which they are a part. So doing invokes Aristotle's eudaimonia, conceived as "activities of the soul in accord with virtue" (Aristotle, 349 B.C., 1925). He believed such personal excellence required identifying and cultivating virtues, and then striving to live in accord with them. Virtue thus becomes a habit of acting well.

The content of people's central objectives in living reveal dramatic distinctions between benevolent and malevolent life purpose. Exemplars from human history whose core endeavors were transformative in promoting better lives include Abraham Lincoln, Gandhi, Mother Teresa, Eleanor Roosevelt, Martin Luther King, and Nelson Mandela. Collectively, they were committed to the preservation and enhancement of the welfare of others. A current exemplar of such virtuous doing is Volodymyr Zelenskyy, the President of Ukraine, who is devoting himself to protecting his people and the democracy they represent. Alternatively, human history includes grim counterparts whose overarching purpose led to unimaginable suffering and death: Stalin, Hitler, or more recently, Saddam Hussein and Muammar Gaddafi, or most recently, Vladimir Putin. The purposeful pursuits of these individuals were about power, dominance, and control over others, enacted with profound cruelty and heartlessness.

What then about ordinary lives? How can their purposeful engagements become empirically tractable questions that weave purpose and virtue together? One strategy is to focus on what people *do*—the behaviors and actions in which they engage. Ryff and Kim (2020) offered several examples, such as *volunteering*, which prospectively predicts greater eudaimonic and social well-being. Similarly, Choi and Kim (2011) found that time volunteering and charitable giving were positively associated with subsequent eudaimonic well-being. Greenfield and Marks (2004) examined formal volunteering as moderator of links between later life role loss and psychological well-being, finding strong evidence for purpose in life.

Generativity, formulated by Erikson (1959) as concern about guiding and directing the next generation, can be expressed in family, work, and community life. Keyes and Ryff (1998) showed those with higher educational standing displayed higher levels of generative self-conceptions, norms, and behaviors. These aspects of caring and doing for others were predictive of multiple aspects of psychological and social well-being. Generativity partially explained socioeconomic disparities in well-being, thereby underscoring how heightened inequality may undermine the purposeful life engagements of some who lack the wherewithal to help guide and direct the lives of others. Gruenewald et al. (2012) found that greater generative concerns and contributions predicted lower odds of declining physical function or death 10 years later. Homan et al. (2020) studied parents of children with developmental problems or mental disorder. Associations were found between such parenting and mental and physical health, with the effects moderated by levels of generativity and gender. Mothers reported experiencing more adverse effects of parenting, but their effects on health were buffered by high levels of generativity.

Rossi (2001) brought multiple measures of *social responsibility* to MIDUS to probe people's normative obligations, time commitments, and financial contributions as well as examine the developmental roots (early socialization experiences) of such activities. Colby et al. (2001) found that those who described their paid work in terms of social responsibility displayed higher scores on measures of civic obligation and altruism. Colby et al. (2020) formulated the meaning of moral flourishing in later life in terms of purposeful engagements that extend beyond the self.

These topics illustrate how purposeful life engagements sometimes encompass virtuous doing for others. Such inquiries unpack the life activities (content) of those reporting high purpose in life, while also advancing understanding of how these varieties of virtuous doing may contribute to the betterment of others. Future science needs to examine who (defined by age, gender, race, socioeconomic status, culture) shows profiles of virtuous purpose, and what are their consequences for mental and physical health (of self and others). Such inquiries broaden the scope of purposeful life engagements, viewed not only as a core feature of positive mental health, but as a way of contributing to humanity.

Concluding points

Although mental health tends to be defined in terms of emotional disorder and distress, this essay emphasizes the role of a purposeful life engagement as a critical component of positive mental health. The conceptual foundations of this aspect of well-being were revisited and emerging science showing the benefits of purpose in life for multiple aspects of health (prevention, physiology and the brain, reduced risk of disease, extended longevity) were distilled. Given growing evidence that purposeful life engagements are good for health, emphasis was then given to factors that may undermine or nurture this component of well-being.

Ever-widening economic inequality, now exacerbated by the pandemic, was posed as a growing impediment to purposeful life engagements among disadvantaged segments of society. A key question is whether the heightened financial strain and diminished life opportunities now experienced by many will translate to ever more compromised profiles of purpose and meaning. Such questions are important to consider across the decades of adult life, including early adulthood when individuals are formulating their life plans, in middle adulthood as challenges of managing work and family life are paramount, and in old age when losses of aging and possibly structural lag may come to the fore. Attention then shifted to consider the role of the arts and humanities in helping nurture purposeful and meaningful lives, drawing on growing evidence that the arts, broadly defined, are linked with better health and well-being. Insights from those who teach great literature and poetry illuminated how such learning might contribute to greater

self-knowledge and personal vitality, including one's sense of direction in life. Whether encounters with the arts might nurture greater compassion and caring for those who are suffering, especially among the privileged, was considered.

A final section called for greater connection of purposeful life engagement with the topic of virtue. Examples of benevolent and malevolent life purpose were drawn from historical figures. Underscoring the need to translate such ideas to empirically tractable questions, multiple types of "virtuous doing" were considered: volunteering, generativity, and social responsibility. Taken together, these ideas broaden current conceptions of mental health to encompass, not only positive functioning—formulated here as purposeful life engagement—but also to emphasize synergies between how good lives are lived and better societies promoted.

References

- Alimujiang, A., Wiensch, A., Boss, J., Fleischer, N.L., Mondul, A.M., McLean, K., Mukherjee, B., Pearce, C.L., 2019. Association between life purpose and mortality among US adults older than 50 years. *JAMA Netw. Open* 2 (5), e194270. <https://doi.org/10.1001/jamanetworkopen.2019.4270>.
- Allport, G.W., 1961. *Pattern and Growth in Personality*. Holt, Rinehart, & Winston.
- Aristotle (349 BC), 1925. *The Nicomachean Ethics*. W.D. Ross, Trans. Oxford University Press, New York.
- Bishaw, A., 2013. Poverty: 2000 to 2012. *American Community Survey Briefs*, pp. 1–16.
- Bloom, H., 2000. *How to Read and Why*. Simon & Schuster, New York.
- Boylan, J.M., Ryff, C.D., 2015. Psychological well-being and metabolic syndrome: findings from the midlife in the United States national sample. *Psychosom. Med.* 77 (5), 548–558. <https://doi.org/10.1097/PSY.0000000000000192>.
- Boyle, P.A., Barnes, L.L., Buchman, A.S., Bennett, D.A., 2009. Purpose in life is associated with mortality among community-dwelling older persons. *Psychosom. Med.* 71, 574–579. <https://doi.org/10.1097/PSY.0b013e3181a5a7c0>.
- Boyle, P.A., Buchman, A.S., Barnes, L.L., Bennett, D.A., 2010. Effect of purpose in life on risk of incident Alzheimer's disease and mild cognitive impairment in community-dwelling older persons. *Arch. Gen. Psychiatr.* 67, 304–310. <https://doi.org/10.1001/archgenpsychiatry.2009.208>.
- Boyle, P.A., Buchman, A.S., Wilson, R.S., Yu, L., Schneider, J.A., Bennett, D.A., 2012. Effect of purpose in life on the relation between Alzheimer disease pathologic changes on cognitive function in advanced age. *Arch. Gen. Psychiatr.* 69 (5), 499–505. <https://doi.org/10.1001/archgenpsychiatry.2011.1487>.
- Bühler, C., Massarak, F. (Eds.), 1968. *The Course of Human Life*. Springer, New York.
- Burgard, S.A., Kalousova, L., 2015. Effects of the great recession: health and well-being. *Annu. Rev. Sociol.* 41, 181–201.
- Carnevale, A.P., Jayasundera, T., Gulish, A., 2016. *America's Divided Recovery: College Haves and Have-Nots*. Center on Education and the Workforce, Georgetown Public Policy Institute, Georgetown University.
- Case, A., Deaton, A., 2015. Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century. *Proc. Natl. Acad. Sci. U. S. A.* 112 (49), 15078–15083. <https://doi.org/10.1073/pnas.1518393112>.
- Chetty, R., Friedman, J.N., Saez, E., Turner, N., Yagan, D., 2017. *Mobility Report Cards: The Role of Colleges in Intergenerational Mobility*. NBER, Working Paper No. 23618, Issued July, 2017.
- Choi, N.G., Kim, J., 2011. The effect of time volunteering and charitable donations in later life on psychological well-being. *Ageing Soc.* 31 (4), 590–610.
- Clarke, P.J., Marshall, V.W., Ryff, C.D., Rosenthal, C.J., 2000. Well-being in Canadian seniors: findings from the Canadian study of health and aging. *Can. J. Aging* 19, 139–159. <https://doi.org/10.1017/S0714980800013982>.
- Cohen, R., Bavishi, C., Rozanski, A., 2016. Purpose in life and its relationship to all-cause mortality and cardiovascular events: a meta-analysis. *Psychosom. Med.* 78, 122–133. <https://doi.org/10.1097/PSY.0000000000000274>.
- Colby, A., Sippola, L., Phelps, E., 2001. Social responsibility and paid work in contemporary American life. In: Rossi, A.S. (Ed.), *Caring and Doing for Others: Social Responsibility in Domains of Family, Work, and Community*. University Chicago Press, Chicago, IL, pp. 463–501.
- Colby, A., Bundick, M., Remington, K., Morton, E., 2020. Moral flourishing in later life through purpose beyond the self. In: Jensen, L.A. (Ed.), *The Oxford Handbook of Moral Development: An Interdisciplinary Perspective*. Oxford University Press, New York, NY, pp. 440–460.
- Cole, S.W., Levine, M.E., Arevalo, J.M.G., Ma, J., Weir, D.R., Crimmins, E.M., 2015. Loneliness, eudaimonia, and the human conserved transcriptional response to adversity. *Psychoneuroendocrinology* 62, 11–17. <https://doi.org/10.1016/j.psyneuen.2015.07.001>.
- Crawford, P., Brown, B., Baker, C., Tischler, V., Abrams, B., 2015. *Health Humanities*. Palgrave Macmillan, New York.
- Erikson, E.H., 1959. Identity and the life cycle: selected papers. *Psychol. Issues* 1, 1–171.
- Fancourt, D., Finn, S., 2019. What is the Evidence on the Role of the Arts in Improving Health and Well-Being? A Scoping Review. WHO Regional Office for Europe, Health Evidence Network (HEN), Copenhagen. Synthesis Report 67.
- Frankl, V.E., 1959. *Man's Search for Meaning: An Introduction to Logotherapy*. Beacon Press, Boston, MA.
- Friedman, E.M., Ryff, C.D., 2012. Living well with medical comorbidities: a biopsychosocial perspective. *J. Gerontol. B Psychol. Sci. Soc. Sci.* 67 (5), 535–544. <https://doi.org/10.1093/geronb/gbr152>.
- Edmondson, M., 2004. *Why Read?* Bloomsbury, New York, NY.
- Glei, D.A., Goldman, N., Weinstein, M., 2019. A growing socioeconomic divide: effects of the Great Recession on perceived economic distress in the United States. *PLoS One* 14, 1–24. <https://doi.org/10.1371/journal.pone.0214947>.
- Goldman, N., Glei, D., Weinstein, M., 2018. Declining mental health among disadvantaged Americans. *Proc. Natl. Acad. Sci. U. S. A.* 115, 7290–7295. <https://doi.org/10.1073/pnas.1722023115>.
- Graham, C., 2017. *Happiness for All? Unequal Hopes and Lives in Pursuit of the American Dream*. Princeton University Press.
- Greenfield, E.A., Marks, N.F., 2004. Formal volunteering as a protective factor for older adults' psychological well-being. *J. Gerontol. B Psychol. Sci. Soc. Sci.* 59 (5), S258–S264.
- Gruenewald, T.L., Liao, D.H., Seeman, T.E., 2012. Contributing to others, contributing to oneself: perceptions of generativity and health in later life. *J. Gerontol. B Psychol. Sci. Soc. Sci.* 67 (6), 660–665.
- Hafez, D., Heisler, M., Choi, H., Ankuda, C.K., Winkelman, T., Kullgren, J.T., 2018. Association between purpose in life and glucose control among older adults. *Ann. Behav. Med.* 52 (4), 309–318. <https://doi.org/10.1093/abm/kax012>.
- Heisel, M.J., Neufeld, E., Flett, G.L., 2016. Reasons for living, meaning in life, and suicide ideation: investigating the roles of key positive psychological factors in reducing suicide risk in community-residing older adults. *Aging Ment. Health* 20 (2), 195–207. <https://doi.org/10.1080/13607863.2015.1078279>.
- Heller, A.S., Reekum, C. M. van, Schaefer, S.M., Lapate, R.C., Radler, B.T., Ryff, C.D., Davidson, R.J., 2013. Sustained striatal activity predicts eudaimonic well-being and cortisol output. *Psychol. Sci.* 24 (11), 2191–2200. <https://doi.org/10.1177/0956797613490744>.
- Hill, P.L., Edmonds, G.W., Hampson, S.E., 2019. A purposeful lifestyle is a healthful lifestyle: linking sense of purpose to self-rated health through multiple health behaviors. *J. Health Psychol.* 24 (10), 1392–1400. <https://doi.org/10.1177/1359105317708251>.
- Hill, P.L., Turiano, N.A., 2014. Purpose in life as a predictor of mortality across adulthood. *Psychol. Sci.* 25 (7), 1482–1486. <https://doi.org/10.1177/0956797614531799>.

- Hill, P.L., Weston, S.J., 2019. Evaluating eight-year trajectories for sense of purpose in the health and retirement study. *Aging Ment. Health* 23 (2), 233–237. <https://doi.org/10.1080/13607863.2017.1399344>.
- Homan, K.J., Greenberg, J.S., Mallick, M.R., 2020. Generativity and well-being of midlife and aging parents of children with developmental or mental health problems. *Res. Aging* 42, 95–104. <https://doi.org/10.1177/0164027519884759>.
- Hoynes, H., Miller, D.L., Schaller, J., 2012. Who suffers during recessions? *J. Econ. Perspect.* 26, 27–47. <https://doi.org/10.1257/jep.26.3.27>.
- Hooker, S.A., Masters, K.S., 2016. Purpose in life is associated with physical activity measured by accelerometer. *J. Health Psychol.* 21 (6), 962–971. <https://doi.org/10.1177/1359105314542822>.
- Jahoda, M., 1958. *Current Concepts of Positive Mental Health*. Basic Books.
- Keyes, C.L.M., Ryff, C.D., 1998. Generativity in adult lives: social structural contours and quality of life consequences. In: McAdams, D.P., de St Aubin, E. (Eds.), *Generativity and Adult Development: How and Why We Care for the Next Generation*. American Psychological Association, Washington, D.C., pp. 227–263.
- Keyes, C.L.M., Shmotkin, D., Ryff, C.D., 2002. Optimizing well-being: the empirical encounter of two traditions. *J. Pers. Soc. Psychol.* 82, 1007–1022.
- Kim, E.S., Sun, J.K., Park, N., Kubzansky, L.D., Peterson, C., 2013a. Purpose in life and reduced risk of myocardial infarction among older U.S. adults with coronary heart disease: a two-year follow-up. *J. Behav. Med.* 36, 124–133.
- Kim, E.S., Sun, J.K., Park, N., Peterson, C., 2013b. Purpose in life and reduced incidence of stroke in older adults: the Health and Retirement Study. *J. Psychosom. Res.* 74, 427–432.
- Kim, E.S., Strecher, V.J., Ryff, C.D., 2014. Purpose in life and use of preventive health care services. *Proc. Natl. Acad. Sci. U. S. A.* 111 (46), 16331–16336. <https://doi.org/10.1073/pnas.1414826111>.
- Kim, E.S., Hershner, S.D., Strecher, V.J., 2015. Purpose in life and incidence of sleep disturbances. *J. Behav. Med.* 38 (3), 590–597.
- Kim, E.S., Kawachi, I., Chen, Y., Kubzansky, L.D., 2017. Association between purpose in life and objective measures of physical function in older adults. *JAMA Psychiatr.* 74 (10), 1039–1045. <https://doi.org/10.1001/jamapsychiatry.2017.2145>.
- Kim, E.S., Ryff, C.D., Hassett, A., Brummett, C., Yeh, C., Strecher, V., 2020. Sense of purpose in life and likelihood of future illicit drug use or prescription medication misuse. *Psychosom. Med.* 82, 715–721. <https://doi.org/10.1097/PSY.0000000000000842>.
- Kinnier, R.T., Metha, A.T., Keim, J.S., Okey, J.L., et al., 1994. Depression, meaninglessness, and substance abuse in “normal” and hospitalized adolescents. *J. Alcohol Drug Educ.* 39 (2), 101–111.
- Kirsch, J.A., Love, G.D., Radler, B.T., Ryff, C.D., 2019. Scientific imperatives vis-à-vis growing inequality in America. *Am. Psychol.* 74, 764–777.
- Kirsch, J., Ryff, C.D., 2016. Hardships of the great recession and health: understanding varieties of vulnerability. *Health Psychol. Open* 1–15. <https://doi.org/10.1177/105510291662390>.
- Kleiman, E.M., Beaver, J.K., 2013. A meaningful life is worth living: meaning in life as a suicide resiliency factor. *Psychiatr. Res.* 210 (3), 934–939. <https://doi.org/10.1016/j.psychres.2013.08.002>.
- Lappan, S., Thorne, C.B., Long, D., Hendricks, P.S., 2018. Longitudinal and reciprocal relationships between psychological well-being and smoking. *Nicotine Tob. Res.* <https://doi.org/10.1093/ntn/nty185> drz, 9815751.
- Lewis, G.J., Kanai, R., Rees, G., Bates, T.C., 2014. Neural correlates of the “good life”: eudaimonic well-being is associated with insular cortex volume. *Soc. Cognit. Affect Neurosci.* 9, 615–618. <https://doi.org/10.1093/scan/nst032>.
- Martin, J.A., Hamilton, B.E., Ventura, S.J., Osterman, M.J., Wilson, E.C., Mathews, T.J., 2013. National vital statistics reports. *Natl. Vital Stat. Rep.* 62 (1).
- Mill, J.S., 1893/1989. *Autobiography*. Penguin, London.
- Morozink, J.A., Friedman, E.M., Coe, C.L., Ryff, C.D., 2010. Socioeconomic and psychosocial predictors of interleukin-6 in the MIDUS national sample. *Health Psychol.* 29 (6), 626–635. <https://doi.org/10.1037/a0021360>.
- Perry, B.L., Aronson, B., Pescosolido, B.A., 2021. Pandemic precarity: COVID-19 is exposing and exacerbating inequalities in the American heartland. *Proc. Natl. Acad. Sci. U. S. A.* 118. <https://doi.org/10.1073/pnas.2020685118> e2020685118.
- Pew Research Center, 2020. Unemployment Rose Higher in Three Months of COVID-19 Than It Did in Two Years of the Great Recession, pp. 1–9. June 11. <https://www.pewresearch.org/fact-tank/2020/06/11/unemployment-rose-higher-in-three-months-of-covid-19-than-it-did-in-two-years-of-the-great-recession/>.
- Pfeffer, F.T., Danziger, S., Schoeni, R.F., 2013. Wealth disparities before and after the great recession. *Ann. Am. Acad. Polit. Soc. Sci.* 650, 98–123. <https://doi.org/10.1177/0002716213497452>.
- Piketty, T., Saez, E., Zucman, G., 2018. Distributional national accounts: methods and estimates for the United States. *Q. J. Econ.* 133, 553–609. <https://doi.org/10.1093/qje/qjx043>.
- Reeves, R.V., 2017. *Dream Hoarders: How the American Upper Middle Class is Leaving Everyone Else in the Dust, Why That is a Problem, and What to Do About It*. The Brookings Institution, Washington, D.C.
- Riley, M.W., Kahn, R.L., Foner, A., Mack, K.A., 1994. *Age and Structural Lag: Society's Failure to Provide Meaningful Opportunities in Work, Family, and Leisure*. John Wiley & Sons.
- Rossi, A.S. (Ed.), 2001. *Caring and Doing for Others: Social Responsibility in Do the Domains of Family, Work, and Community*. University of Chicago Press, Chicago, IL.
- Roth, M.S., 2014. *Beyond the University: Why Liberal Education Matters*. Yale University Press, New Haven.
- Royal Society and Public Health Working Group, 2013. *Arts, Health, and Wellbeing Beyond the Millennium: How Far Have We Come and Where Do We Want to Go?* Royal Society for Public Health, London, England.
- Russell, B., 1958. *The Conquest of Happiness*. Liveright, New York, NY.
- Ryff, C.D., 1989. Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *J. Pers. Soc. Psychol.* 57, 1069–1081. <https://doi.org/10.1037/0022-3514.57.6.1069>.
- Ryff, C.D., 2014. Psychological well-being revisited: advances in the science and practice of eudaimonia. *Psychother. Psychosom.* 83 (1), 10–28. <https://doi.org/10.1159/000353263>.
- Ryff, C.D., 2018. Well-being with soul: science in pursuit of human potential. *Perspect. Psychol. Sci.* 13 (2), 242–248. <https://doi.org/10.1177/1745691617699836>.
- Ryff, C.D., 2019. *Linking Education in the Arts and Humanities to Life-Long Well-Being and Health*. Andrew W. Mellon Foundation, New York. Retrieved from. <https://mellon.org/resources/articles/linking-education-arts-and-humanities-life-long-well-being-and-health/>.
- Ryff, C.D., Heller, A.S., Schaefer, S.M., Van Reekum, C., Davidson, R.J., 2016. Purposeful engagement, healthy aging, and the brain. *Curr. Behav. Neurosci. Rep.* 3, 318–327. <https://doi.org/10.1007/s40473-016-0096-z>.
- Ryff, C.D., Keyes, C.L.M., 1995. The structure of psychological well-being revisited. *J. Pers. Soc. Psychol.* 69, 719–727.
- Ryff, C.D., Kim, E.S., 2020. Extending research linking purpose in life to health: the challenges of inequality, the potential of the arts, and the imperative of virtue. In: Burrow, A.L., Hill, P. (Eds.), *The Ecology of Purposeful Living Across the Lifespan*. Springer, pp. 29–58. https://doi.org/10.1007/978-3-030-52078-6_3.
- Ryff, C.D., Singer, B.H., 2008. Know thyself and become what you are: a eudaimonic approach to psychological well-being. *J. Happiness Stud.* 9, 13–39. <https://doi.org/10.1007/s10902-006-9019-0>.
- Sartre, J.-P., 1956. *Being and Nothingness: An Essay on Phenomenological Ontology*. Translated by H.E. Barnes. Philosophical Library, NY.
- Schaefer, S.M., Morozink Boylan, J., van Reekum, C.M., Lapate, R.C., Norris, C.J., Ryff, C.D., Davidson, R.J., 2013. Purpose in life predicts better emotional recovery from negative stimuli. *PLoS One* 8 (11), e80329. <https://doi.org/10.1371/journal.pone.0080329>.
- Serkez, Y., 2021. We Did Not Suffer Equally. *The New York Times*. March 11.
- Sewell, W.H., Hauser, R.M., Featherman, D.L. (Eds.), 1976. *Schooling and Achievement in the American Society*. Academic Press, New York.
- Sewell, W.H., Hauser, R.M., Springer, K.W., Hauser, T.S., 2004. As we age: a review of the the Wisconsin Longitudinal Study. *Res. Soc. Stratification* 20, 3–111.

- Shanahan, M.J., Hill, P.L., Roberts, B.W., et al., 2014. Conscientiousness, health, and aging: the life course personality model. *Dev. Psychol.* 50 (5), 1407–1425.
- Steger, M.F., 2021. Meaning in life: a unified model. In: Snyder, C.R., Lopez, S.J., Edwards, L.M., Marques, S.C. (Eds.), *Oxford Handbook of Positive Psychology*, third ed. Oxford University Press.
- Springer, K.W., Pudrovskaya, T., Hauser, R.M., 2011. Does psychological well-being change with age? Longitudinal tests of age variations and further exploration of the multidimensionality of Ryff's model of psychological well-being. *Soc. Sci. Res.* 40 (1), 392–398. <https://doi.org/10.1016/j.ssresearch.2010.05.008>.
- Steptoe, A., Fancourt, D., 2019. Leading a meaningful life at older ages and its relationship with social engagement, prosperity, health, biology, and time use. *Proc. Natl. Acad. Sci. U. S. A.* 116 (4), 1207–1212. <https://doi.org/10.1073/pnas.1814723116>.
- Turner, A.D., Smith, C.E., Ong, J.C., 2017. Is purpose in life associated with less sleep disturbance in older adults? *Sleep Sci. Pract.* 1, 14. <https://doi.org/10.1186/s41606-017-0015-6>.
- van Reekum, C.M., Urry, H.L., Johnstone, T., Thurow, M.E., Frye, C.J., Jackson, C.A., Schaefer, H.S., Alexander, A.L., Davidson, R.J., 2007. Individual differences in amygdala and ventromedial prefrontal cortex activity are associated with evaluation speed and psychological well-being. *J. Cognit. Neurosci.* 19 (2), 237–248. <https://doi.org/10.1162/jocn.2007.19.2.237>.
- Windsor, T.D., Curtis, R.G., Luszcz, M.A., 2015. Sense of purpose as a psychological resource for aging well. *Dev. Psychol.* 51, 975–986. <https://doi.org/10.1037/dev0000023>.
- Yu, L., Boyle, P.A., Wilson, R.S., Levine, S.R., Schneider, J.A., Bennett, D.A., 2015. Purpose in life and cerebral infarcts in community dwelling older persons. *Stroke* 46, 1071–1076. <https://doi.org/10.1161/STROKEAHA.114.008010>.
- Zilioli, S., Slatcher, R.B., Ong, A.D., Gruenewald, T.L., 2015. Purpose in life predicts allostatic load ten years later. *J. Psychosom. Res.* 79 (5), 451–457. <https://doi.org/10.1016/j.jpsychores.2015.09.013>.