

Title: Be kind and act justly for your own health. Evidence from a three-wave longitudinal study

Keywords: prudence, altruism, justice, kindness, health, flourishing, character strength

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Short abstract

There is some theoretical and empirical evidence that character strengths, such as helping others, and being kind, support human thriving. We examine the impact of character strengths on a broader conceptualization of ‘human flourishing’ that includes physical and emotional health, as well as, happiness and life satisfaction, meaning and purpose, and close social relationships.

We use data from the three waves of the SHINE Well-Being Survey and lagged regression with control for confounders at baseline (wave 1) and prior outcomes and exposure (wave 1), to evaluate the temporal association between the character strength (wave 2) and 14 outcomes (wave 3).

Always acting to promote good in all circumstances, even in difficult and challenging situations, was found to be positively associated with subsequent: (1) life satisfaction and happiness, (2) meaning and purpose, (3) close social relationships, (4) mental health, (5) feeling lonely and (6) feeling stressed at work.

Our findings support the idea that complete human flourishing and the ability to sustain complete well-being over time, may relate to being good and acting justly. Most interestingly, current public health initiatives do not typically extend into the realm of character strengths. Instead, the view of health is often limited to physical and mental health without a line of sight to the related dimensions of complete human flourishing. Our findings suggest that if we re-imagine health, we might see the value of prudence and virtue in enhancing the performance of every actor.

Extended abstract

Introduction

Aristotle (2009) posited that in order to attain complete eudaimonic well-being, an excellent character and right manner behavior, understood as acting in accord with virtue, are essential. Some studies support the hypothesis that the exercise of character strengths does indeed contribute, on average, to increased human thriving and decreased depressive symptoms, with results lasting at least 6 months (Seligman et al. 2005). Others studies have shown that helping others and being kind may help the well-being of givers (Aknin et al. 2015; Aknin, Dunn, Helliwell, et al. 2013; Aknin, Dunn, Sandstrom, et al. 2013; Curry et al. 2018). Evidence on the impact on general health, however, is more limited, with the exception of the impact of volunteering on mental health and survival (Jenkinson et al. 2013).

Our aim is to examine the impact of kindness, prudence, and justice – cardinal virtues as described by Plato and Aristotle (2009) – on physical and emotional health and a broader conceptualization of ‘human flourishing’ that also includes happiness and life satisfaction, meaning and purpose, and close social relationships.

We study health outcomes beyond physical and mental health, using an expansive conceptualization of complete human flourishing. Specifically, VanderWeele and colleagues (2019, p. 1667) argued that people care ‘not only about physical health and test results ‘within normal limits’ but also more broadly about being happy, having meaning and purpose, being ‘a good person,’ and having fulfilling relationships’, factors associated with psychological and social well-being.

Material and Methods

Data

Data were collected from 495 apparel workers in Mexico who participated in each of three annual surveys of the SHINE Well-Being Survey (SWBS). The first wave of the SWBS was administered in February 2017, the second in March 2018, and the third in March 2019. Table 1 presents the descriptive statistics for the longitudinal sample.

Table 1. Baseline characteristics of participants in 2017. Numbers represent percentages unless indicated differently (n=495).

Characteristic	Statistics
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Gender (women)	45.25
Age – mean (SD)	34.95 (10.06)
18-24	18.79
25-34	28.28
35-44	35.96
45 and more	16.97
Marital status (married)	60.46
Education (at least high school)	12.55
Having children under the age 18 currently living in the household	68.57
Being a primary caretaker for a parent or an elderly currently living in the household	47.48
Job tenure	
Up to 1 year	3.03
More than 1 year and up to 5 years	34.75
More than 5 years	62.22

The SWBS was administered on tablets in private areas separate from employees’ workstations. To minimize disruptions to factory production, workers were surveyed in batches (e.g. one production line at a time). Participation was voluntary and confidential. Informed written consent was obtained from the participants. All protocols for recruitment and participation were reviewed and approved by the Harvard T.H. Chan School of Public Health Institutional Review Board.

Health and Flourishing Outcomes

We used an outcome-wide approach in which multiple outcomes were considered for a single exposure (VanderWeele 2017a). We examined 14 outcomes from the CDC Health-Related Quality of Life (CDC-HRQoL) (Moriarty et al. 2003), the Flourishing Index (FI) (VanderWeele et al. 2019; Weziak-Bialowolska et al. 2019) and the Job-Related Affective Well-Being Scale (JRAWBS) (Katwyk et al. 2000). The CDC-HRQoL items reflected the number of days in the last month during which the individual experienced the following: (1) feeling depressed, (2) feeling anxious, (3) experiencing pain and (4) suffering from poor sleep. The FI, four human flourishing included the following outcomes: (1) life satisfaction and happiness, (2) meaning and purpose, (3) close social relationships, and (4) physical and (5) mental health. The JRAWBS measures included feeling (1) energetic, (2) stressed, (3) lonely, (4) close to people and (5) trustful, while at work.

Character strength

A single question was used: I always act to promote good in all circumstances, even in difficult and challenging situations (VanderWeele et al. 2019). Respondents could choose an answer on a 0=not true of me to 10=completely true of me scale.

Control variables

A rich set of control variables, already established as influencing changes in general health as well as emotional, physical, and social well-being, were used to investigate the influence of character strength on health and human flourishing. Specifically, we controlled for gender, age, education, marital status, having children at home, taking care of an elderly and BMI, as well as the life style (drinking, smoking) and community safety.

Methods

We used three waves of annual data from a panel of 495 employees at an apparel company in Mexico, and lagged regression analyses, controlling for confounders at baseline (from wave 1) and prior outcomes and exposure (at wave 1), to examine the temporal association between the character strength (wave 2) and 14 outcomes (wave 3).

Robust results were supported by (1) the use of multiple imputations to account for the potential bias resulting from excluding observations in the complete case scenario, and (2) the design of the study's procedure to account for the common method bias (Podsakoff et al. 2003). Analyses were performed using Stata 15.

Results

Always acting to promote good in all circumstances, even in difficult and challenging situations, was found to be positively associated with subsequent:

- human flourishing dimensions: (1) life satisfaction and happiness (beta=0.107, $p<0.05$), (2) meaning and purpose (beta=0.102, $p<0.05$), (3) close social relationships (beta=0.112, $p<0.05$), (4) mental health (beta=0.144, $p<0.01$);
- affective well-being while-at-work measures: feeling lonely (beta=-0.149, $p<0.05$) and feeling stressed (beta=-0.142, $p<0.05$).

We found no temporal association with any of the four examined CDC Health-Related Quality of Life measures.

Conclusions

The results suggest that policy-makers and practitioners should consider that kindness/ altruism/ prudence/ justice may be important for improving health and complete human flourishing. The results also support the general claim of evolutionary behavioral science that humans possess a range of psychological mechanisms that motivate them to help others and that by doing so they derive satisfaction (Aknin et al. 2012; Curry 2016). We provide evidence that by doing so they can also positively influence health and flourishing in life and limit negative affect while at work.

Our findings support the idea that complete human flourishing and the ability to sustain complete well-being over time, may relate to being good and acting justly. Most interestingly, current public health initiatives do not typically extend into the realm of character strengths. Instead, the view of health is often limited to physical and mental health without a line of sight to the related dimensions of complete human flourishing (VanderWeele 2017b; VanderWeele et al. 2019; Weziak-Bialowolska et al. 2019). Our findings suggest that if we re-imagine health (VanderWeele et al. 2019), we might see the value of prudence and virtue in enhancing the performance of every actor.

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