# Implications for the association of depression, anxiety, and distress tolerance with self-perception of physical health

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# Background

- Self-perception of physical health (SPPH) is a unique measure in that it reflects both presence/absence of health conditions as well as how an individual perceives their physical, mental, and social well-being<sup>1</sup>.
- Links between mental health and physical health are well recognized<sup>2,3</sup>, but less is known about depression and anxiety symptoms in relation to SPPH.
- A more precise understanding of which aspects of mental health influence SPPH is critical since SPPH could influence a person's ongoing health behaviors, long-term functioning, and quality of life.
- To more fully understand predictors of SPPH, we account for not only biologic characteristics and current symptoms, but also coping traits (e.g. distress tolerance), developmental factors (e.g. adverse childhood experiences), and contextual influences (e.g. social support).
- In the present study, we used a nationwide sample of 1,956 young adults to explore predictors of SPPH during a time of high stress during COVID-19. We specifically ask:
  - 1. Are depression and anxiety associated with SPPH even after accounting for physical health conditions?
- 2. Do additional traits and environmental factors impact perceived physical health?

## **Study population**

- The longitudinal COVID-19 Adult Resilience Experiences Study (CARES) examined the psychosocial experiences of **U.S. young** adults aged 18-30 years (mean = 26, SD = 3.6).
- Present analyses use cross-sectional data from Wave IV (February **2022 - June 2022**) which included an additional cohort of a Black, Latiné, and Asian young adults.
- Most participants had relatively few health conditions (mean = 3.3).
- Participants were 71.9% female and 70.7% heterosexual.

### **Analytic approach and key variables**

**Predictors** were assessed with sequentially nested linear models (Fig. 1):

- **1.** Base characteristics: age, gender, sexual orientation, health conditions
- 2. Depression and anxiety: current anxiety symptoms (GAD-7<sup>4</sup>) and depressive symptoms (PHQ-8<sup>5</sup>)
- 3. Internal coping traits: distress tolerance
- 4. Environmental factors: adverse childhood experiences, subjective social status, social support (12-item MSPSS)

#### **Outcome: self-perceived physical health** (SF-12).

#### Results

- Anxiety and depressive symptoms are associated with lower selfperceptions of physical health functioning even when accounting for previous health diagnoses, with depressive symptoms being the stronger negative predictor (beta = -0.10).
- Distress tolerance showed the strongest positive association with **SPPH** (beta = 0.35).
- Higher ACES are associated with decrease in SPPH (consistent with previous literature).
- Social support is associated with an increase in SPPH (only about half as much as distress tolerance).

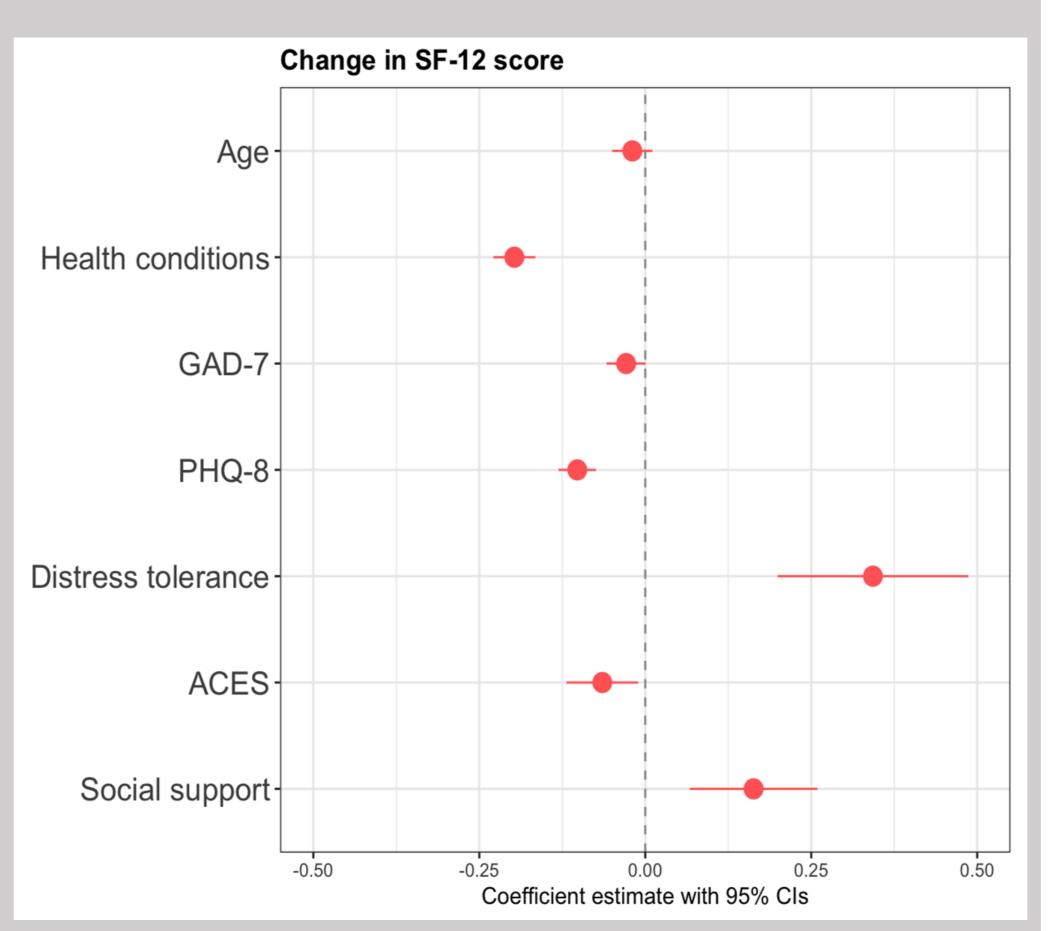
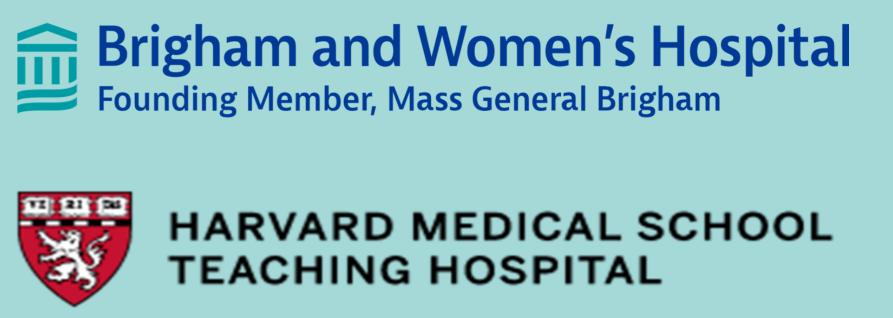
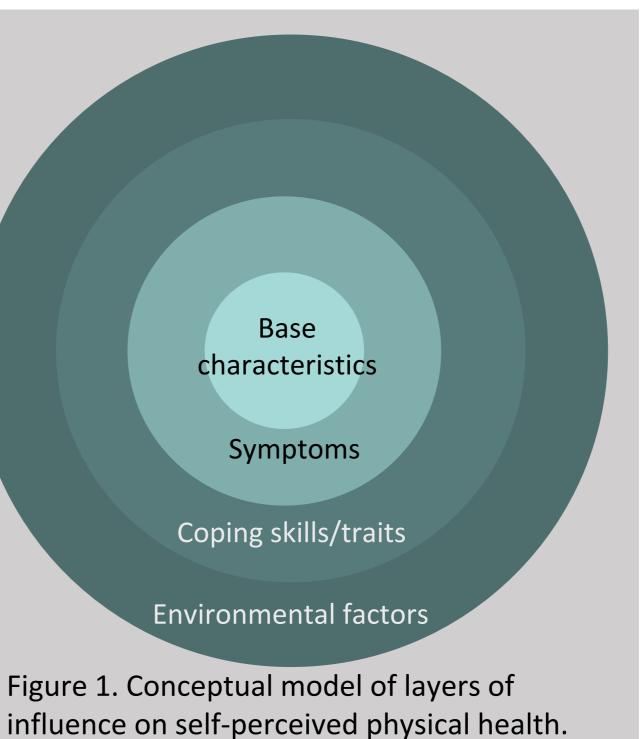


Figure 2. Predictors of self-perceived physical health. Results corrected for age, gender, sexual orientation, and number of physical health conditions.







#### **Clinical Implications**

- Current SPPH could influence a person's ongoing and future health behaviors, treatment seeking, and overall functioning.
- Both physical and mental health underlie selfperception of physical health, perhaps due to overall positive or negative view of self.
- We may be able to **mitigate the effects of** depression and anxiety on SPPH by improving distress tolerance through behavioral therapies such as Dialectical Behavioral Therapy (DBT).
- Particularly in a sample of racially diverse young adults studied during the pandemic, these findings have important implications for understanding distress tolerance as a key factor in overall health.

### **Future Work**

- Consider sex/gender and racial/ethnic differences.
- Consider the effect of time duration of mental health symptoms on physical health outcomes.



#### Meet the author

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**ces**: <sup>1</sup>Liu CH, Zhang E, Hyun S, Wong GTF, Hahm HC. Health-related quality of life nong US young adults during the COVID-19 pandemic: Psychiatric symptoms and emotiona periences to target within clinical practice. Ann Clin Psychiatry. 2021 Aug;33(3):232-240. ter MW, Bockting CL, Schene AH; DELTA Study Group. Health relate ntern Med. 2006 May 22;166(10):1092-7. <sup>5</sup>Kroenke K, Strine TW erry JT, Mokdad AH. The PHQ-8 as a measure of current depression the general population. J Affect Disord. 2009 Apr;114(1-3):163-73. doi: 10.1016/j.jad.2008.06.026. Epub 2008 Aug 27. PMID: 18752852. Acknowledgements: NSF Rapid Grant #2027553, Family Health and Resilience Fund (PIs Liu & Hahm).