Who Needs a Friend? How Age and Having Someone one can Count on Explain Subjective Well-Being in India

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INTRO

- India's **subjective well-being (SWB)** declined steadily from 2009-2019. For the sake of the country where nearly 20% of humankind resides, this study investigates what might explain so much suffering.
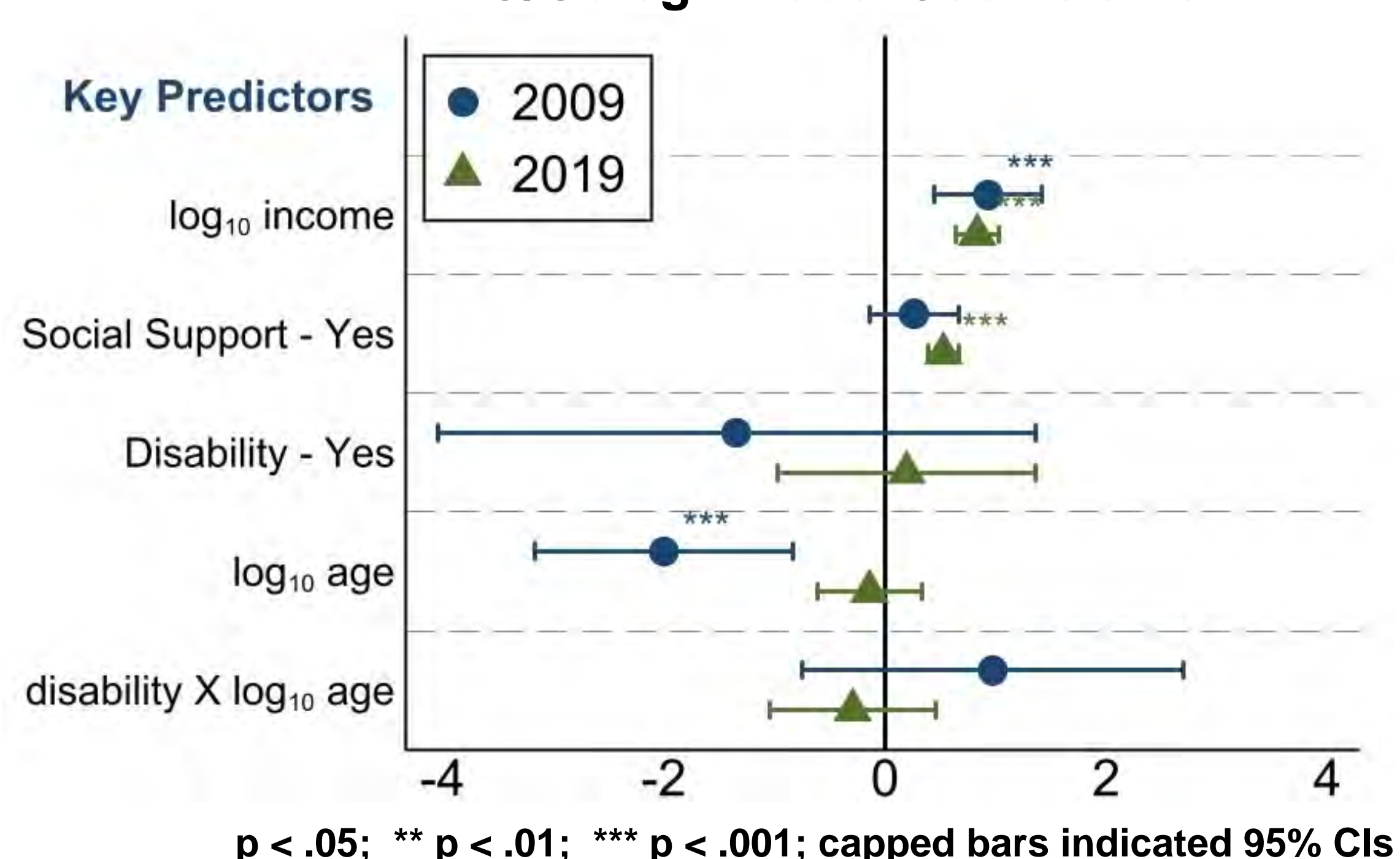
METHODS

1. **Research Question**: How have the known, expected predictors of SWB changed 2009 vs. 2019 in India?
2. **Data**: Annual, cross-sectional, nationally-representative samples of India's adult 15+ population for years 2009-2019 (n=66,530). The data source is the **Gallup World Poll.**
3. **Primary analysis**: partial proportional odds (PPO) regression model of known SWB predictors, regressing the 3-level, ordinal Life Evaluation Index measure from Gallup for India in 2009 and 2019.

$$P(Y_i > j) = \frac{\exp(\alpha_j + X_i\beta_j)}{1 + \exp(\alpha_j + X_i\beta_j)}$$

RESULTS

PPO/Gologit Model Coefficients

Key Predictors: ● 2009 ▲ 2019

log₁₀ income, Social Support - Yes, Disability - Yes, log₁₀ age, disability X log₁₀ age

p < .05; ** p < .01; *** p < .001; capped bars indicated 95% CIs
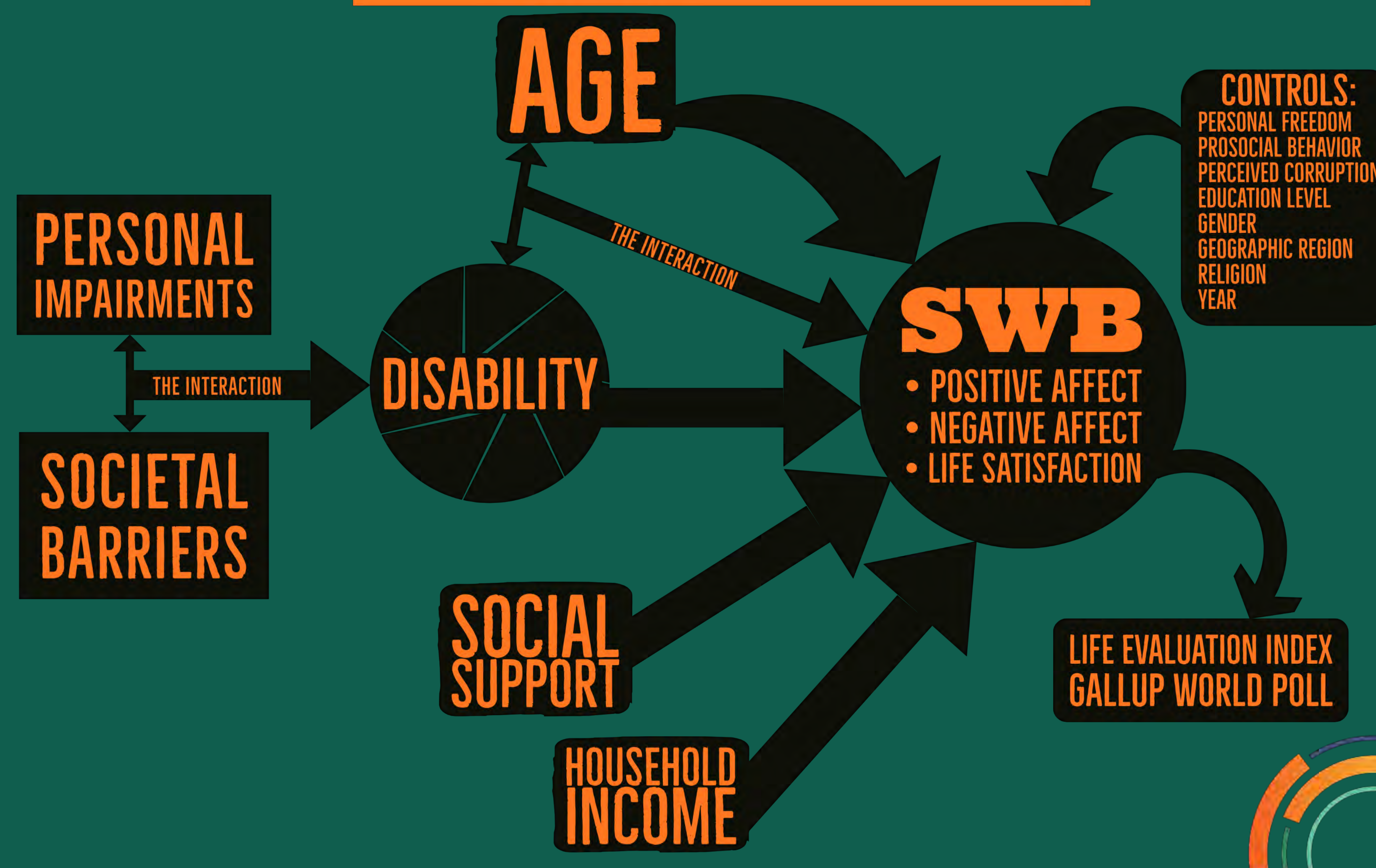
DISCUSSION

The coefficients for age, disability, and their interaction are not significant in 2019, but that's not central. Given the interactive and nonlinear relationships among predictors in a PPO model, these are better understood through adjusted margins, predicted probabilities, and AMEs with CIs, some highlights of which are shared in this poster. The probability of suffering with disability increased with age in 2019, which was not the case in 2009. And in 2019, social support decreased the probability of suffering more than anything except income. Lots of anguish, coupled with some hope.
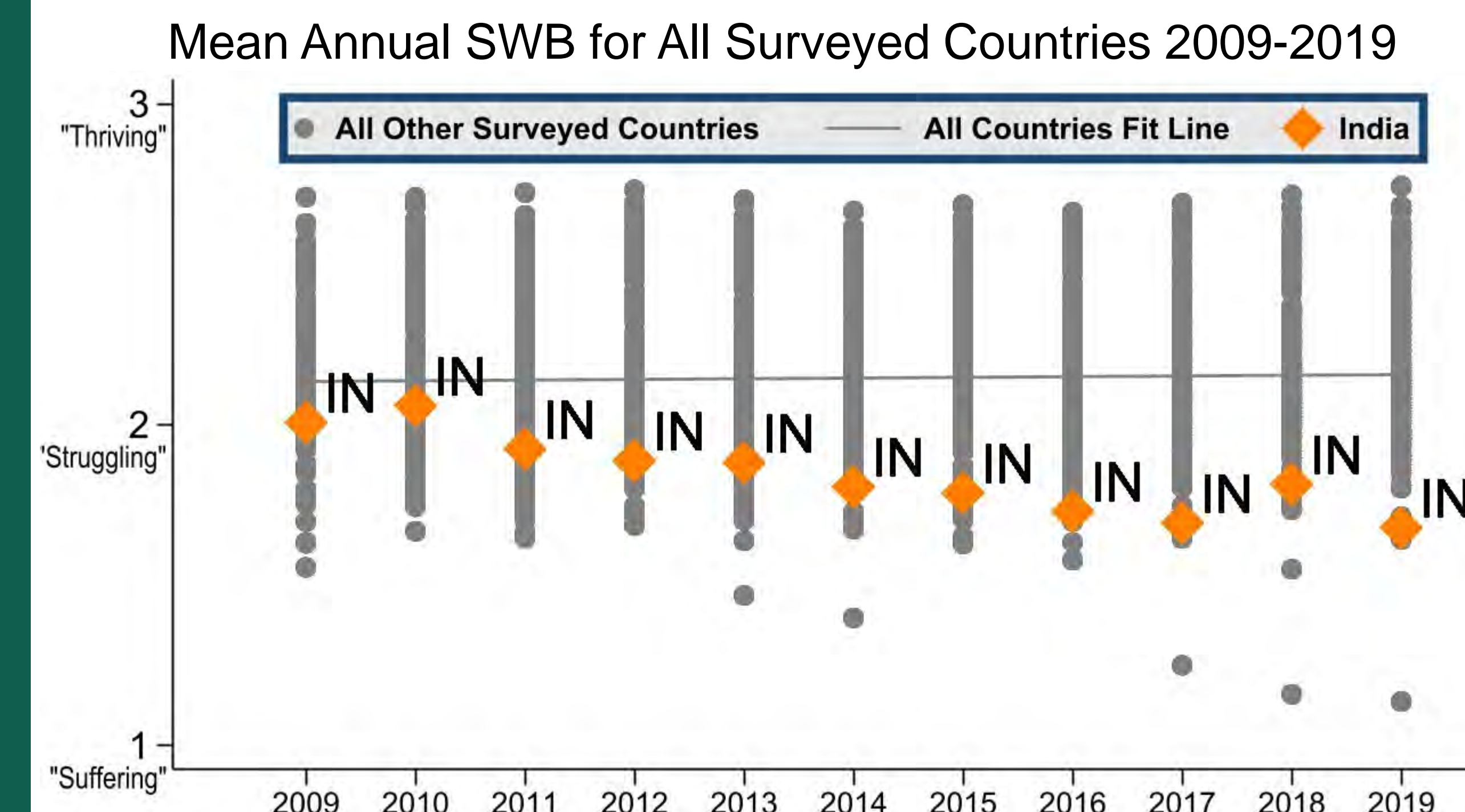

Disability increases probability of suffering, more so with **age**, in **2019 India.** **Social support can counteract a lot of that.** People literally need one another.

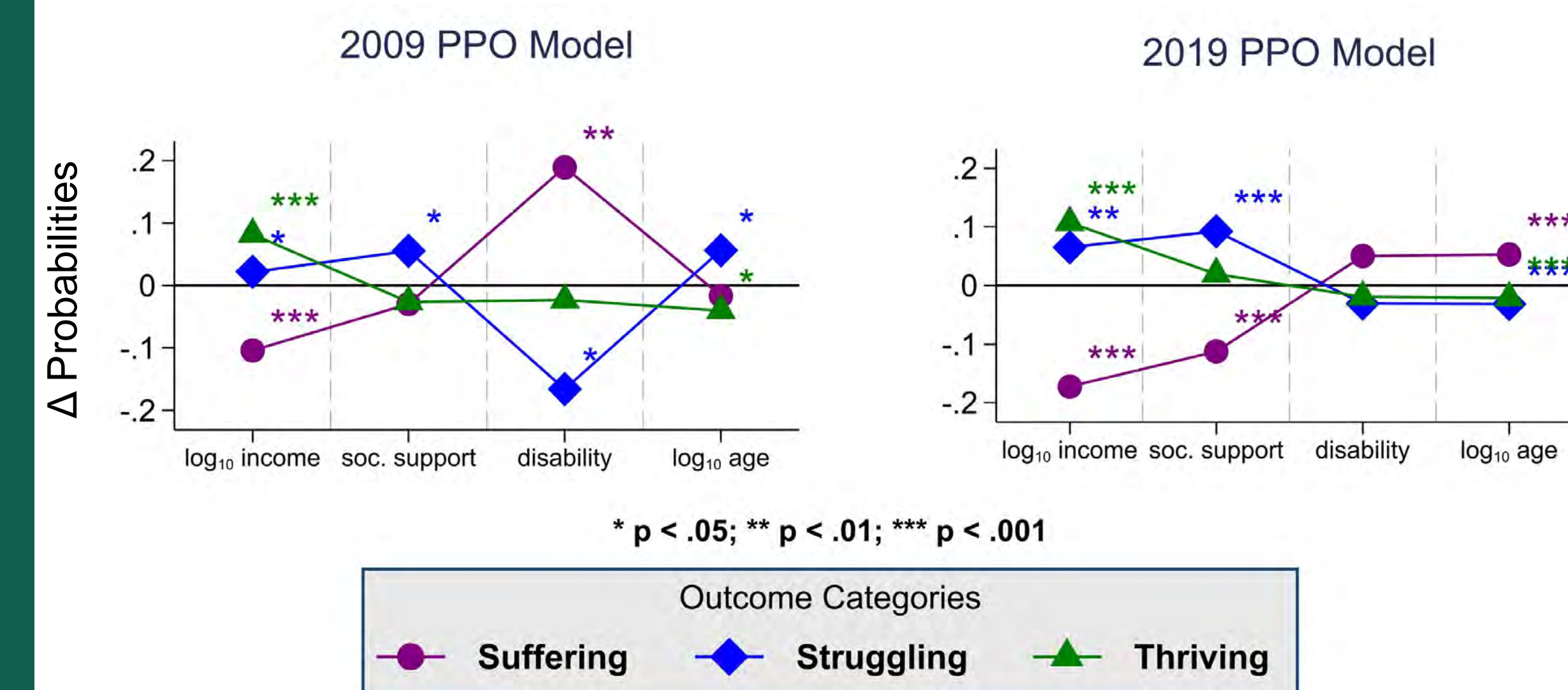# CONCEPTUAL MODEL FOR SWB IN INDIA IN THE PRESENT STUDY

AGE

PERSONAL IMPAIRMENTS

THE INTERACTION

SOCIETAL BARRIERS

THE INTERACTION

DISABILITY

THE INTERACTION

SOCIAL SUPPORT

HOUSEHOLD INCOME

SWB
- POSITIVE AFFECT
- NEGATIVE AFFECT
- LIFE SATISFACTION

CONTROLS:
PERSONAL FREEDOM
PROSOCIAL BEHAVIOR
PERCEIVED CORRUPTION
EDUCATION LEVEL
GENDER
GEOGRAPHIC REGION
RELIGION
YEAR

LIFE EVALUATION INDEX
GALLUP WORLD POLL

GSA 2021 ANNUAL SCIENTIFIC MEETING
Disruption to Transformation: Aging in the "New Normal"

LIFE COURSE CENTER

MPC
MINNESOTA POPULATION CENTER

Indian SWB declined for a decade.

Mean Annual SWB for All Surveyed Countries 2009-2019

● All Other Surveyed Countries — All Countries Fit Line ◆ India

3 "Thriving" / 2 "Struggling" / 1 "Suffering"

2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

Note. Data source is Gallup World Poll (GWP) nationally-representative samples. The SWB outcome measure is the GWP Life Evaluation Index scores for individual survey respondents (n = 1,826,722) aggregated per country and averaged by year. In 2009, India's SWB was #79 out of 114 surveyed countries. In 2019, India's SWB was #142 out of 145 surveyed countries.
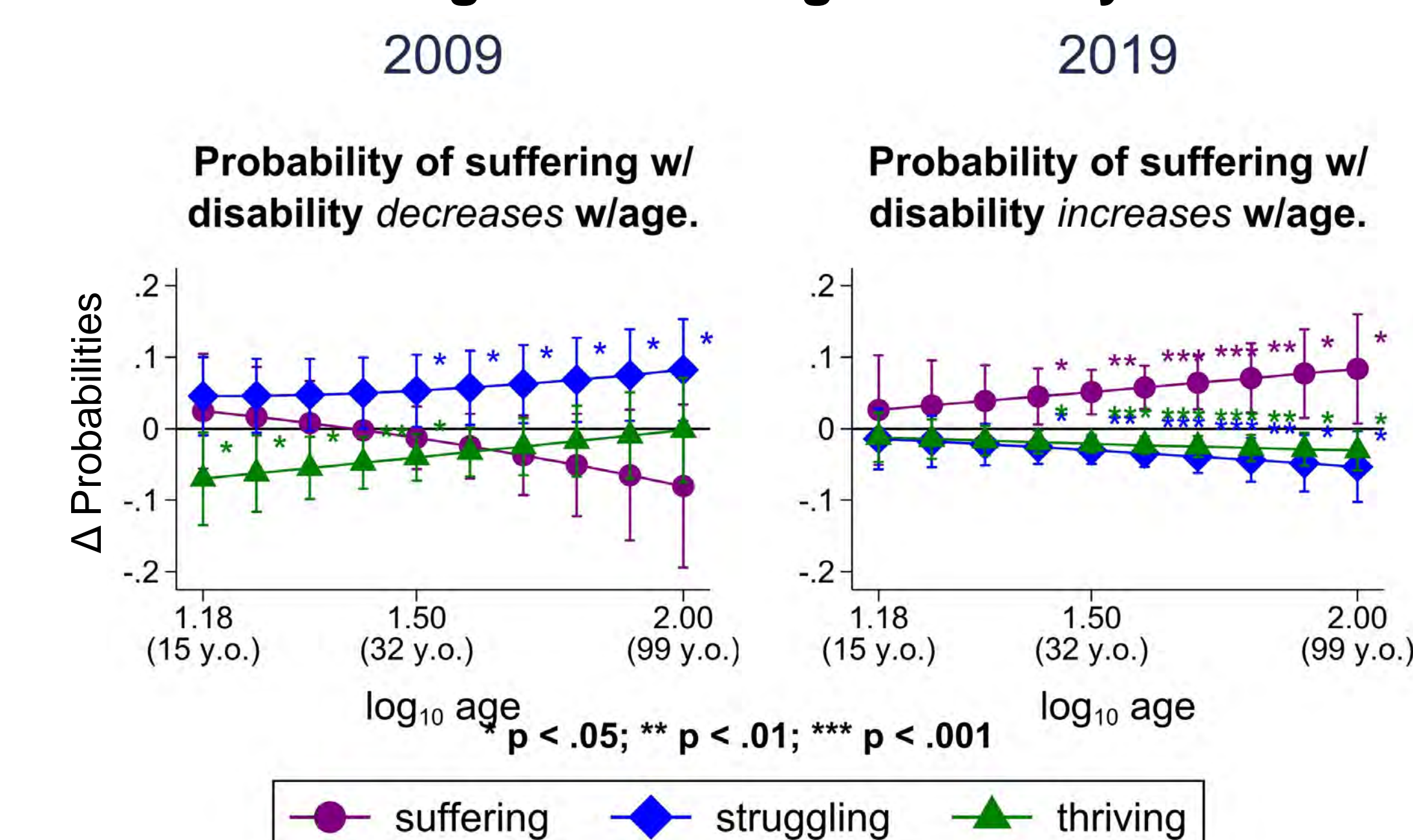
These graphs help explain that.

NB that having social support in 2019 decreased probability of suffering by 11 percentage points.

Average Marginal Effects of Key Predictors in India 2009 vs. 2019

2009 PPO Model   2019 PPO Model

log₁₀ income soc. support disability log₁₀ age

* p < .05; ** p < .01; *** p < .001

Outcome Categories
● Suffering ● Struggling ▲ Thriving

The roles of age, disability, and social support in predicting SWB have shifted.

Predictive Margins for the Age-Disability Interaction

2009 — Probability of suffering w/ disability *decreases* w/age.

2019 — Probability of suffering w/ disability *increases* w/age.

1.18 (15 y.o.) 1.50 (32 y.o.) 2.00 (99 y.o.)

log₁₀ age

p < .05; ** p < .01; *** p < .001

—— suffering —— struggling —— thriving

Data source for both sets of plots is GWP India year waves 2009 and 2019 (n=9,653).

For more info or to be in touch:
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