

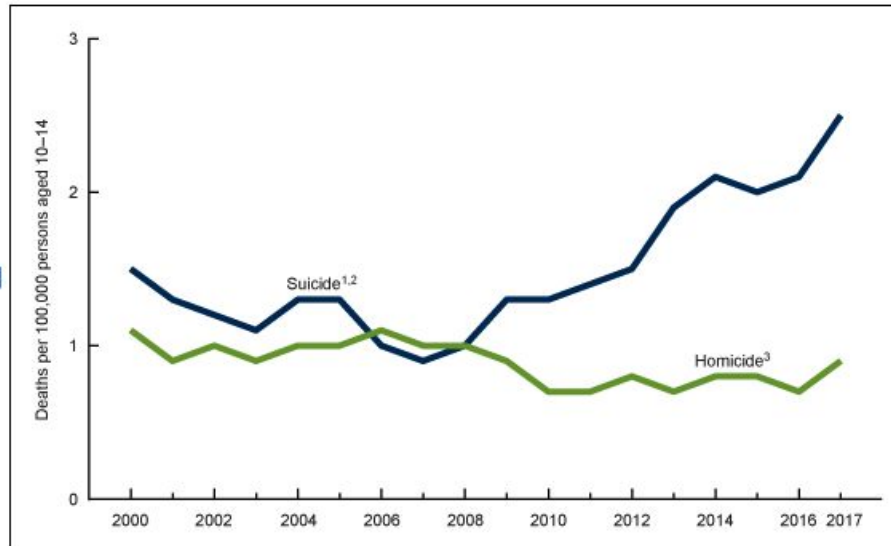
Social Media and Youth Mental Health



UCLA STATS 420
Casual Inference Project
Grace Yang (12/8/2020)

Social Media and Youth Mental Health

Figure 2. Suicide and homicide death rates among children and adolescents aged 10–14: United States, 2000–2017



CDC: “...The suicide rate for persons aged 10–14 declined from 2000 (1.5) to 2007 (0.9), and then nearly tripled from 2007 to 2017 (2.5), while the homicide rate declined 18% from 2000 (1.1) to 2017 (0.9)...”

Anxiety and Depression Association of America: “...Over-use of social media can cause loneliness, depression, and anxiety...”

Research Question

Are there measurable effects on young people's mental health when they had higher than average frequency of social media use?

Data set: "Understanding Society", the largest longitudinal study of its kind on U.K. households

The Strategy

Identification strategy: SOO, plus sensitivity analysis to explore violations

Outcome: “How do you feel about the school you go to?”



Treatment: “How many hours do you spend chatting or interacting with friends through a social media website or app on a normal school day?”

Observables: Gender, age, household income, parents’ education level

Main Results

Estimated ATT: 0.7 unit increase on the happiness/unhappiness scale



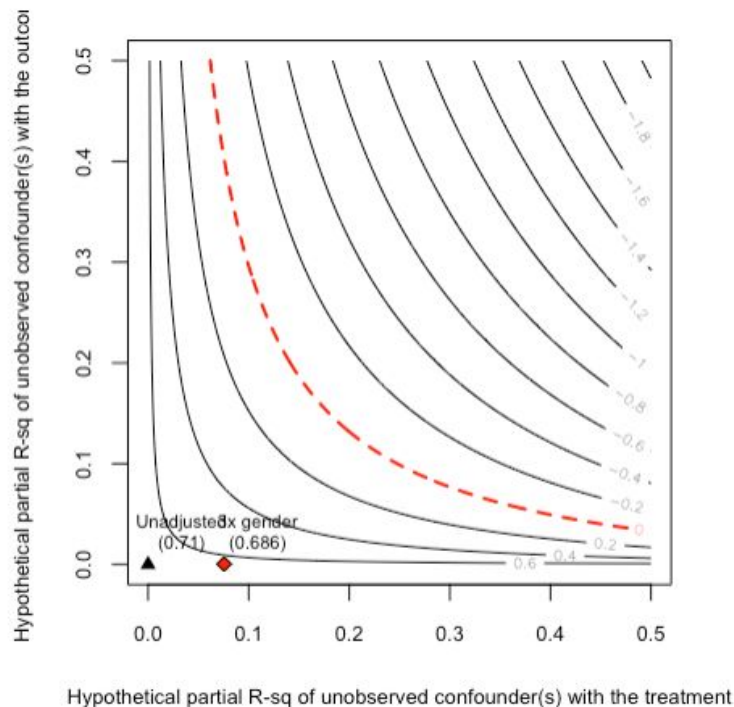
Matching: Yes, with exact matching done on age, gender, and parents' educational level (highest of either parent)

Treatment		Est.	SE	t-stat	R-sq(Y~D/X)	RV	RV(alpha=0.05)	df
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1	model 1: Naive bivariate	0.88	0.11	8.02	5.42%	21.20%	16.50%	1124
2	model 2: Control for 3 covariates	0.71	0.12	6.07	3.19%	16.60%	11.50%	1121

2 rows

Unobserved Confounding?

How “bad” would it have to be to negate my estimated ATE?



Summary

There are measurable negative effects on a young person's mental well-being associated with higher than average social media usage.

The estimated effect of 0.7 units increase seem to be relatively robust to unobserved confounding.

There are 5 other questions about how the child feels about various other aspects: school work, appearance, family, friends, and life in general. 4 out of 5 show measurable increase on the happiness/unhappiness scale.

Questions?

