

Bridging the new digital divide

Adolescents' access, experiences, and effects

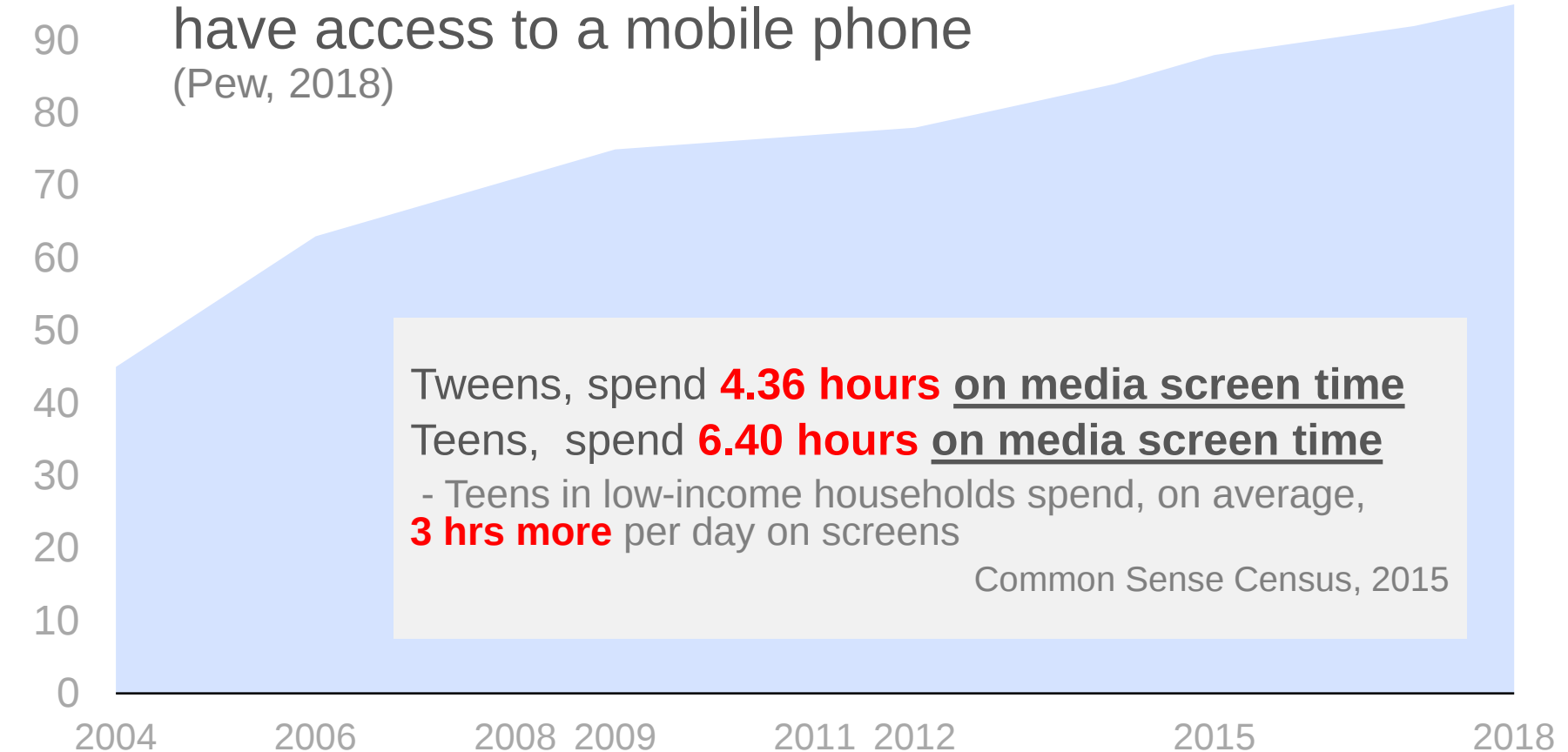
Candice L. Odgers

June 2018, Washington DC



University of California, Irvine

In 2018, **95%** of adolescents
have access to a mobile phone
(Pew, 2018)



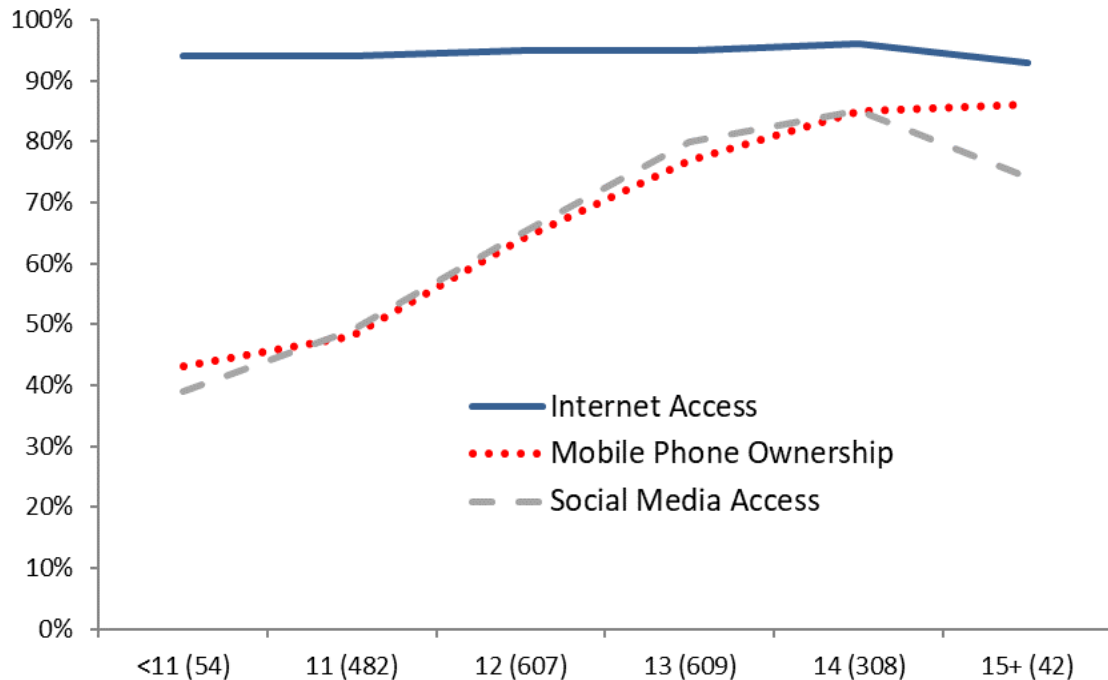
Tweens, spend **4.36 hours** on media screen time

Teens, spend **6.40 hours** on media screen time

- Teens in low-income households spend, on average,
3 hrs more per day on screens

Common Sense Census, 2015

Access Begins Early (N = 2100 adolescents aged 10-15)

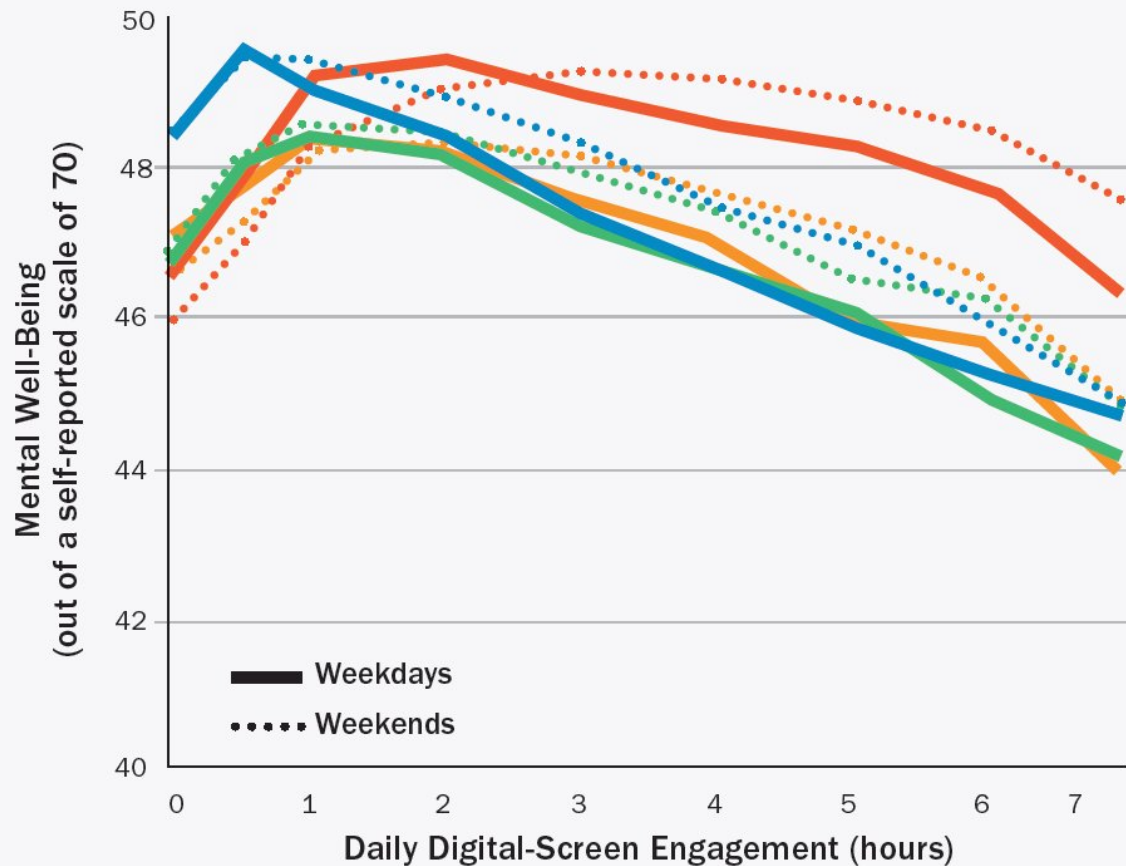


- Traditional digital divide is disappearing
- Few differences in **mobile device** access, by SES
- But, differences in social media access and experiences

Is this constant connection harming our kids?

Most research supports the
“Goldilocks” hypothesis...





No association with moderate levels of screen time...

Negative correlation at “high” levels, BUT

Less than 1% of the variation explained, and

CORRELATIONAL!

- Przybylski et al, Pscych Science

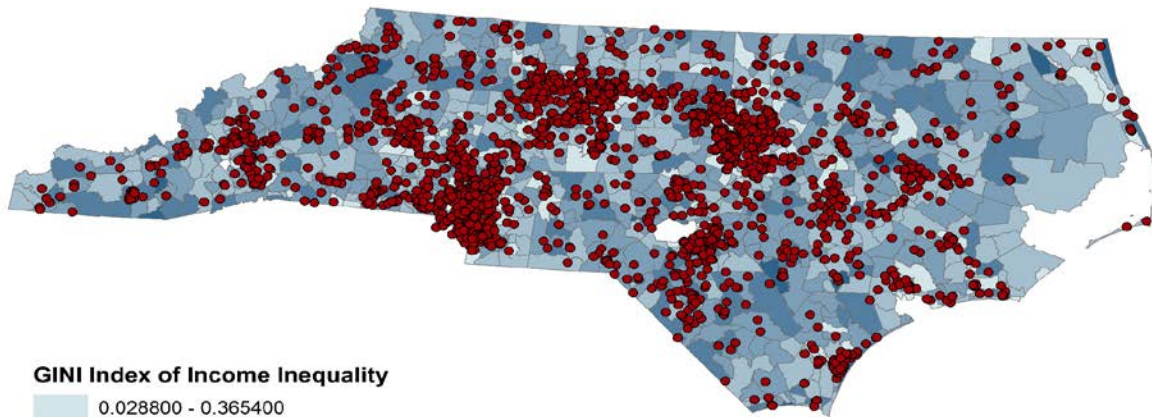
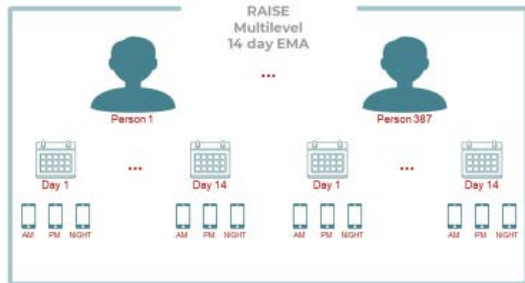
Daily level, few associations between usage and mental health

Michaeline
Jensen, UNC



N = 2000 adolescents + Admin Records
n = 400 BioBaseline + EMA

Ecological Momentary Assessment



GINI Index of Income Inequality



RAISE Research on Adaptive
Interests, Skills, and
Environments

*A Project of the Center for the Study of Adolescent Risk & Resilience (C-StARR)
at Duke University*

Seven Fears and the Science of How Mobile Technologies May Be Influencing Adolescents in the Digital Age

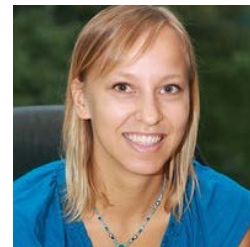
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**Madeline
George**



1. Safety, Who are they talking to?
2. Cyberbullying, new victims?
3. 'Alone Together', no social skills?
4. Being 'someone else' online?
5. Digital divide with parents?
6. Impaired cognitive performance?
7. Losing their sleep?





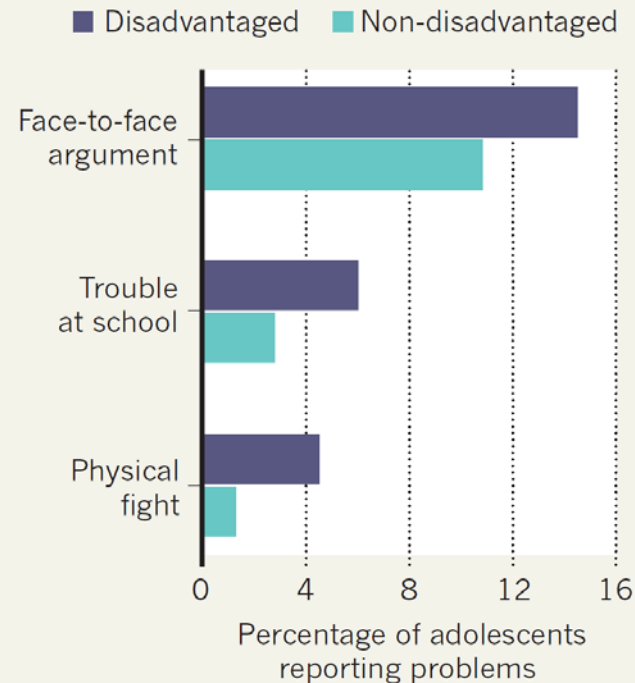
In Europe, smartphone ownership among young people aged 9 to 16 is 46%, according to a 2014 survey of 7 countries.

Smartphones are bad for some teens, not all

Young people who are already struggling offline might experience greater negative effects of life online, writes **Candice Odgers**.

SOCIAL-MEDIA SPILLOVER

In an unpublished survey of 2,100 US teens, those from low-income families are more likely than their affluent peers to report offline problems stemming from use of social media.

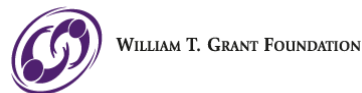


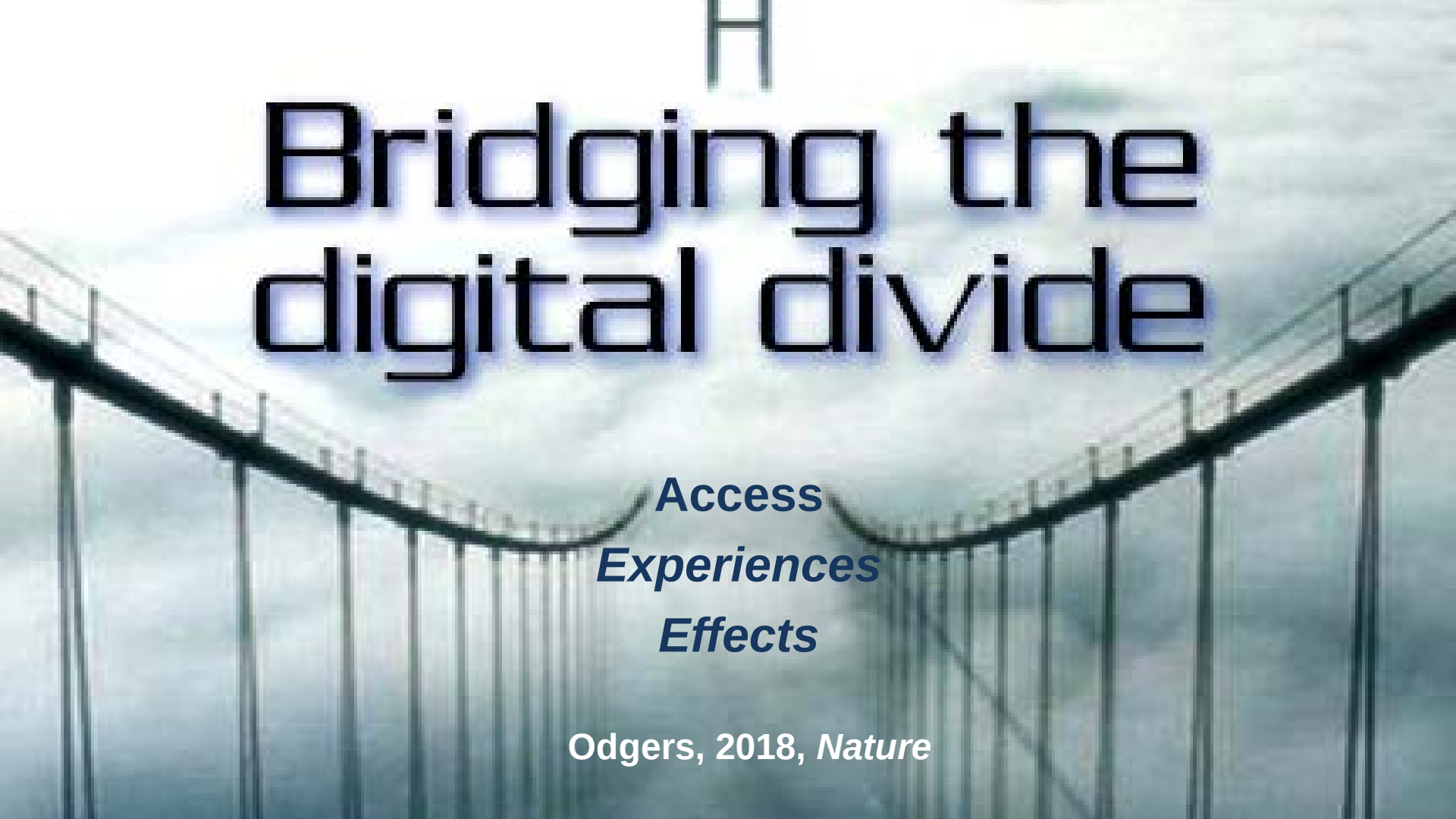
Contact & Funding Support



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Bridging the digital divide

Access
Experiences
Effects

Odgers, 2018, *Nature*

The title for this Special Section is *Contemporary Mobile Technology and Child and Adolescent Development*, edited by Zheng Yan and Lennart Hardell

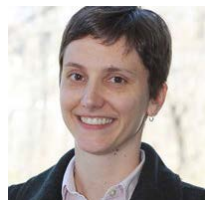
Concurrent and Subsequent Associations Between Daily Digital Technology Use and High-Risk Adolescents' Mental Health Symptoms

Madeleine J. George
Duke University

Michael A. Russell
Pennsylvania State University

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Duke University

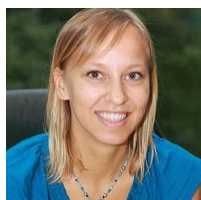
Adolescents are spending an unprecedented amount of time using digital technologies (especially mobile technologies), and there are concerns that adolescents' constant connectivity is associated with poor mental health, particularly among at-risk adolescents. Participants included 151 adolescents at risk for mental health problems ($M_{\text{age}} = 13.1$) who completed a baseline assessment, 30-day ecological momentary assessment, and 18 month follow-up assessment. Results from multilevel regression models showed that daily reports of both time spent using digital technologies and the number of text messages sent were associated with *increased* same-day attention deficit hyperactivity disorder (ADHD) and conduct disorder (CD) symptoms. Adolescents' reported digital technology usage and text messaging across the ecological momentary assessment (EMA) period was also associated with poorer self-regulation and increases in conduct problem symptoms between the baseline and follow-up assessments.



Joy
Piontak



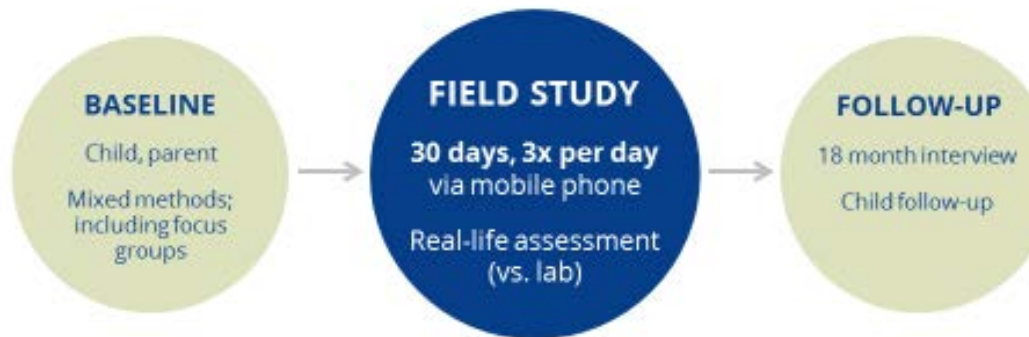
Michael
Russell



Madeline
George

miLife Study Design

- 150 adolescents (ages 12-15 years) & parents in high-risk neighborhoods
- ~14,000 assessments, ~800,000 lines of data



ETV

..see people fighting
in your home?
School?
Neighborhood?

Behaviors

Substance use,
fighting, bullying,
health-risk
behaviors...

Emotions, Symptoms

Anger, depression,
anxiety, irritability,
hopelessness...

Health

Sleep, diet, exercise



Analyses: Multi-level modeling framework (Raudenbush & Bryk, 2002); Person-mean centering est. within and between-person effects of ETV; PROC GLIMMIX, SAS v9.3