

28<sup>th</sup> May 2024, Montréal INRICH 15<sup>th</sup> Annual Workshop

# Impact of poverty on youth mental health: Evidence from low- and middle-income countries



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### Overview

- Introductions
- Definitions
- Social determinants of mental disorders
- Does alleviating poverty improve youth mental health and reduce mental illness?
  - If so, how?
- Summary
  - Avenues for future research



#### Introductions

- Undergraduate training in developmental psychology
  - · Graduate and postdoctoral training in public and global health





SCHOOL OF PUBLIC HEALTH Department of Global Health and Population



#### Introductions

- Undergraduate training in developmental psychology
  - Graduate and postdoctoral training in public and global health
- <u>Research aim</u>: to identify the mechanisms through which parental mental health and parenting behaviours impact child development and mental health in global contexts.
- Early child development or youth mental health researchers?
  - Economists? Global health researchers?

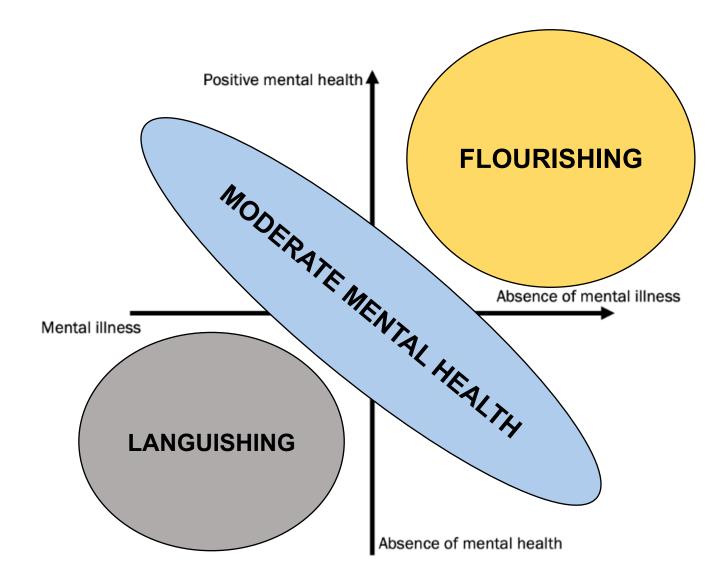


#### Definitions

- Mental health is "a state of wellbeing in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively, and is able to make a contribution to their community."
- "A mental disorder/illness is characterized by a clinically significant disturbance in an individual's cognition, emotional regulation, or behaviour."







Keyes, 2005 J Consult Clin Psychol



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## Definitions

Absolute = individual or household income (< US\$ 2/day)

- **Poverty** Relative = income in relation to average income within a society
  - Deprivation is the unmet needs people have for a number of basic commodities and *poverty* is the lack of resources (e.g., income, education, housing, employment status) required to meet those needs.
- Global health is an area of research and practice that prioritizes improving health and *achieving equity* in health for all people.
  - WHAT to obtain equity in health within and among countries
  - WHERE a context within which there are inequities in health
  - WHO individuals based in regions disproportionately affected by ill-health

Garcia-Basteiro & Ambimbola 2021 BMJ Global Health; Koplan et al., 2009 Lancet; Townsend 1987 J Soc Policy

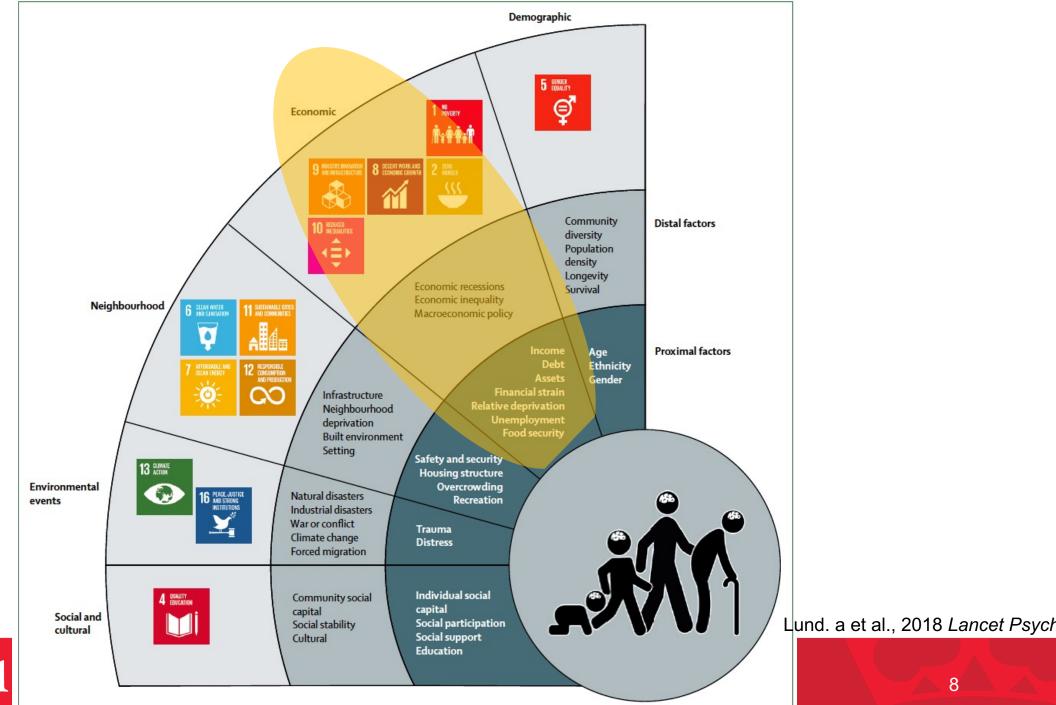


#### Social determinants of mental disorders

- The social and economic conditions that have a direct influence on the prevalence and severity of mental disorders across the life course.
  - "Why treat people only to send them back to the conditions that made them sick in the first place?" WHO Commission on SDH
- Economic domain consists of the factors relating to the production, consumption, and transfer of wealth that convey risk for, or protection from, mental illness.

Lund et al., 2018 Lancet Psychiatry





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- Cash transfer = direct payments made to individuals or households
- Cash transfer programs aim to improve outcomes associated with poverty, such as education, health and nutrition.
  - Although not explicitly designed to improve mental health, there are several mechanisms through which they may also impact the mental health of children and young people living in poverty.
- Two types:
  - Unconditional cash transfers without any actions required from beneficiaries
  - Conditional cash is transferred to beneficiaries that engage in specific, pre-determined behaviours



- Only 2 systematic reviews have specifically examined impact of cash transfer programs on youth mental health.
  - Both reviews included randomized and quasi-randomized studies of conditional and unconditional cash transfers given to parents or youth
- Zimmerman et al found a positive but non-significant impact on reducing depression in youth (0-24 years):
  - Cohen's *d* = 0.02 [95% CI: −0.19 to 0.23], *n*=7
- Zaneva et al found a significant reduction in youth (0-19 years) internalizing symptoms:
  - OR = 0.72 [95% CI: 0.59 to 0.88], n=8

Zaneva et al., 2022 JAH; Zimmerman et al., 2021 BMJ Global Health



		Effect Size	Weight	
Study		with 95% CI	(%)	Conditionality
Angeles et al. (2019) - Malawi		-0.24 [ -0.31, -0.17]	18.43	Conditional
Kilburn et al. (2016) - Kenya		0.40 [ 0.35, 0.46]	18.59	Conditional
Kilburn et al. (2019) - South Africa	-	-0.03 [ -0.09, 0.03]	18.59	Unconditional
Ozer et al. (2009) - Mexico -		-0.14 [ -0.43, 0.14]	14.02	Unconditional
Özler et al. (2019) - Liberia		→ 0.03 [ -1.22, 1.27]	2.48	Unconditional
Shangani et al. (2017) - Kenya		→ 0.31 [ -0.09, 0.71]	11.22	Conditional
Tozan et al. (2019) - Uganda		-0.13 [ -0.30, 0.05]	16.66	Conditional
Overall		0.02 [ -0.19, 0.23]		
Heterogeneity: r <sup>2</sup> = 0.06, I <sup>2</sup> = 95.65%, H <sup>2</sup> = 22.98				
Test of $\theta_i = \theta_i$ : Q(6) = 209.09, p = 0.00				
Test of $\theta$ = 0: z = 0.19, p = 0.85				
5	0	.5 Zimmormon of	. ງ ບັນ	1 BMJ Global Healt
Random-effects REML model	Cohen's d		. ai., 202	
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Study	Odds Ratio	OR	95%-Cl	Weight
Abu-Hamad et al., 2014	— <u>—</u> ——————————————————————————————————	0.81	[0.49; 1.34]	9.0%
Angeles et al., 2019	- • ÷	0.55	[0.40; 0.74]	14.3%
Baird et al., 2013		0.62	[0.44; 0.86]	13.4%
Kang Dufour, 2011		0.32	[0.15; 0.68]	5.3%
Kilburn et al., 2016		0.76	[0.60; 0.96]	16.3%
Kilburn et al., 2019		0.96	[0.84; 1.11]	19.1%
Ozler et al., 2020		0.78	[0.53; 1.14]	11.9%
Prencipe et al., 2021		0.89	[0.58; 1.37]	10.7%
-				
Random effects model	<u> </u>	0.72	[0.59; 0.88]	100.0%
	0.2 0.5 1 2 5			
Fav	vors intervention Favors control			

OR

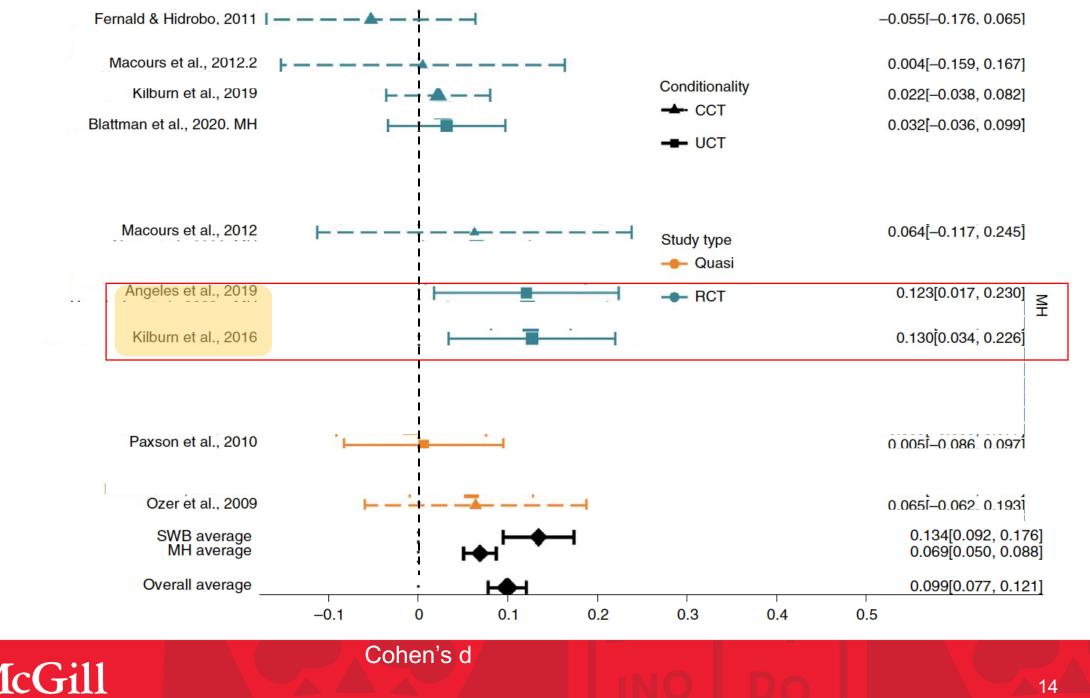


Zaneva et al., 2022 JAH

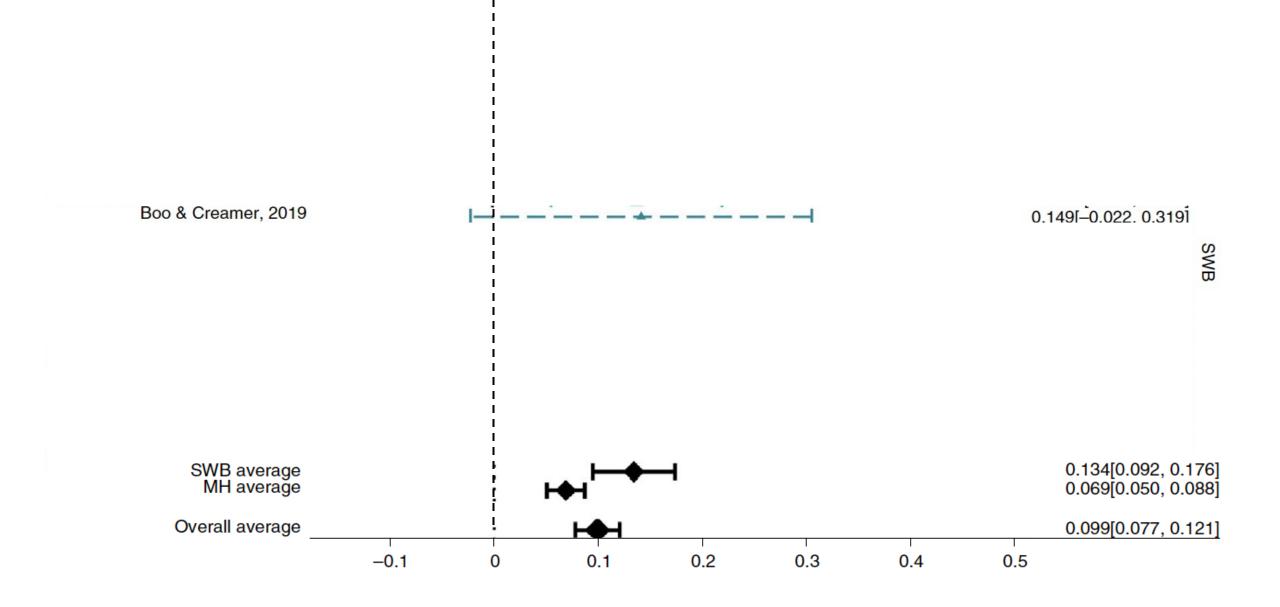
- The most recent meta-analysis of cash transfer impacts on mental health in LMICs found small positive impacts on:
  - Mental health (and illness): *Cohen's d* = 0.07 [95% CI: 0.05-0.09]
  - Subjective well-being: *Cohen's d* = 0.13 [95% CI: 0.09-0.18]
- Only 20% of studies examined outcomes in youth, but authors were unable to test participant age as a moderator.
  - Cash transfer had mixed impacts on youth mental health (and illness).







McGuire et al., 2022 Nat Hum Behav



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15 McGuire et al., 2022 *Nat Hum Behav* 

## If so, how?

- There isn't clear and consistent evidence that alleviating poverty improves youth mental health or reduces mental disorders.
  - Importantly though, there is no evidence that poverty alleviation harms youth mental health or increases mental illness.
- There is likely a bi-directional causal relationship between poverty and youth mental health (and illness), with theoretical and empirical evidence of potential mechanisms.
  - Although most of this evidence is based on studies with adults.

McGuire et al., 2022 Nat Hum Behav; Zimmerman et al., 2021 BMJ Global Health



# How are poverty and youth mental health (and illness) associated?

Economic insecurity Family conflict Inadequate nutrition Poor physical health Inadequate housing/homelessness

Parental mental illness?

Cognitive development Educational attainment Employment status Productivity Income level





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# How are poverty and youth mental health (and illness) associated?

- Depression is one of the most prevalent mental disorders in parents of young children and a robust determinant of children's mental health.
  - 11-25% in mothers and 7% in fathers
- Experimental evidence from Mexico and Côte d'Ivoire shows reductions in depressive symptoms and stress for mothers who received cash transfers.
  - Observational evidence from South Africa suggests that receiving cash transfers reduces the strength of association between parental and adolescent depression.

Cameron et al., 2016 JAD; Eyal & Burns, 2019 World Dev; Gelaye et al., 2016 Lancet Psych; Ozer et al., 2011 IJE; Wolf et al., 2024 J Child Fam Stud



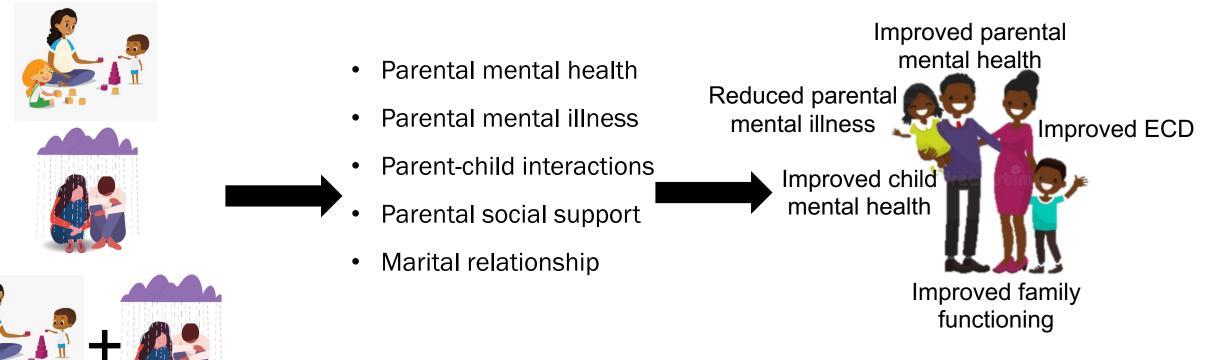
## Summary

- Cash transfer programs are successful in improving adult mental health and reducing mental illness in LMICs.
  - There is less consistent (and poorer quality) evidence of their impact on youth mental health and mental illness in these contexts.
- Further robust experimental research among youth is needed to
  - 1. Examine mechanisms through which cash transfers (conditional or unconditional) impact youth mental health and mental illness
  - 2. Determine long-term impacts of cash transfer programs on youth outcomes, especially after programs have ended
  - 3. Examine spillover effects of cash transfer programs on households and communities, particularly regarding parental mental health and illness



## Avenues for future research

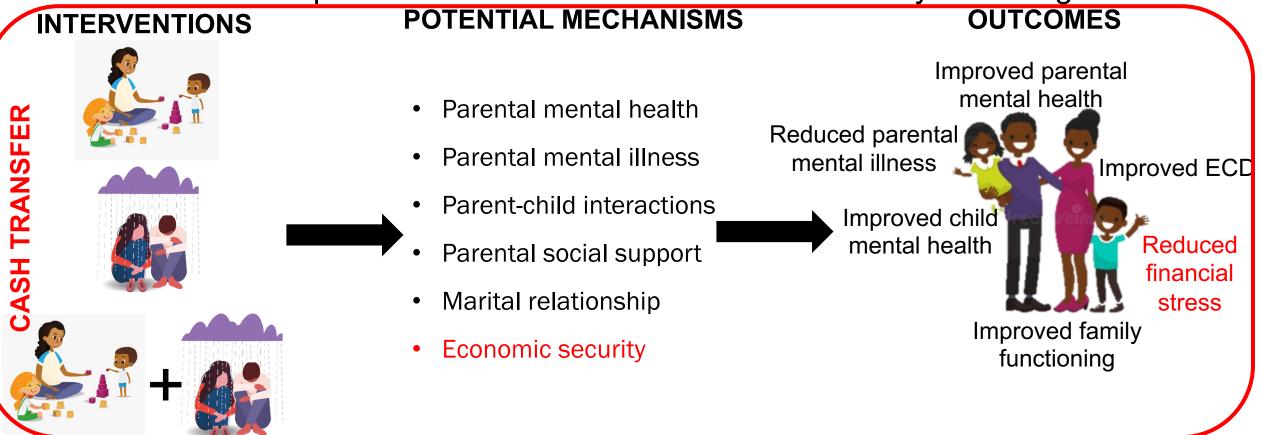
 Developing a parenting and mental health promotion intervention for mothers and fathers to promote children's mental health and family wellbeing in Ghana INTERVENTIONS POTENTIAL MECHANISMS OUTCOMES





## Avenues for future research

 Developing a parenting and mental health promotion intervention for mothers and fathers to promote children's mental health and family wellbeing in Ghana





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# Thank you!

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