

Do Mental Health Declines Contribute to Falling Fertility Motivations?

A cohort analysis from Australia

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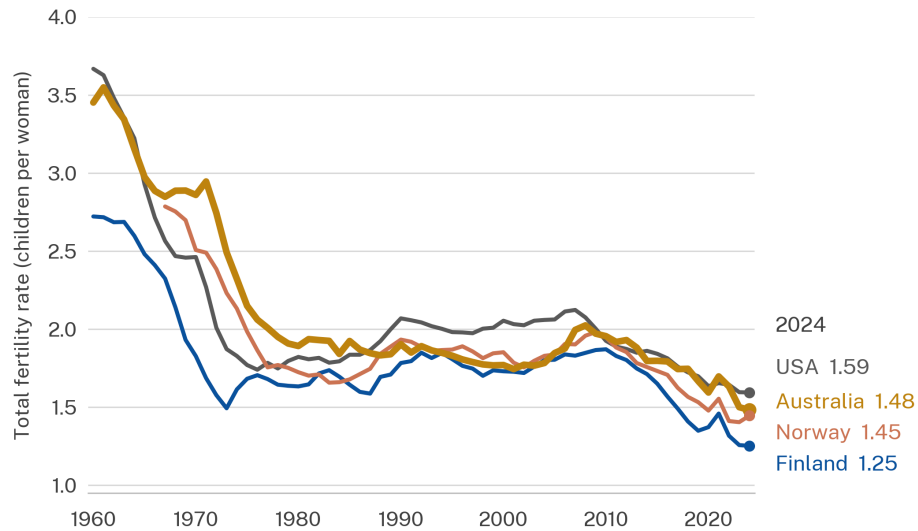
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Introduction: Two parallel declines....

Total Fertility Rates Falling

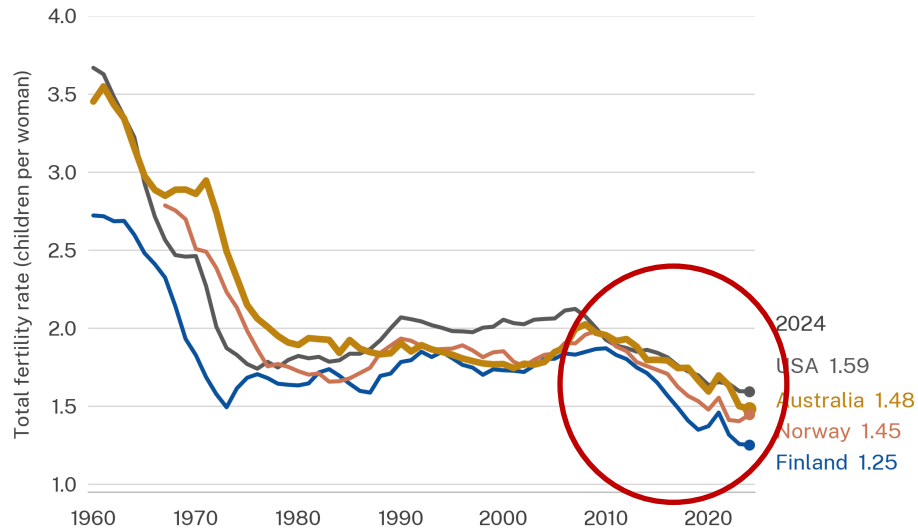


Source: Human Fertility Database (Finland, Norway, USA; Norway from 1967); ABS (Australia).



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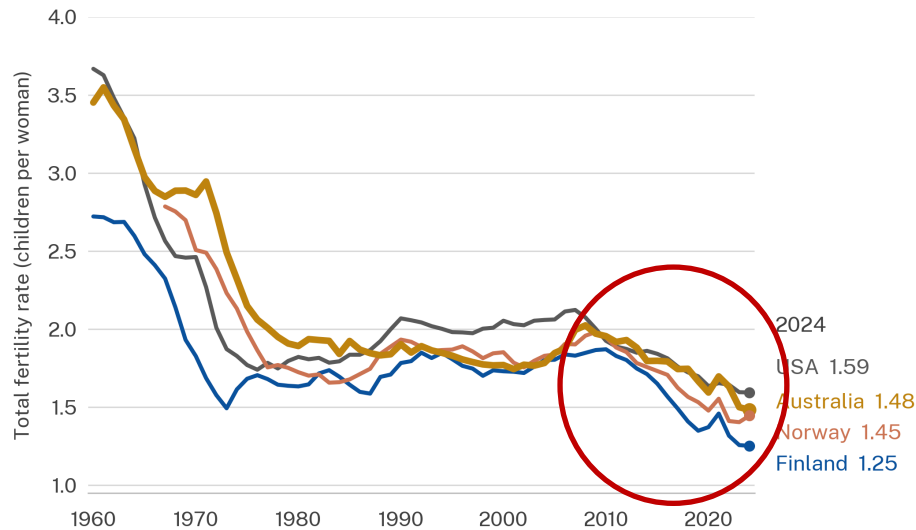


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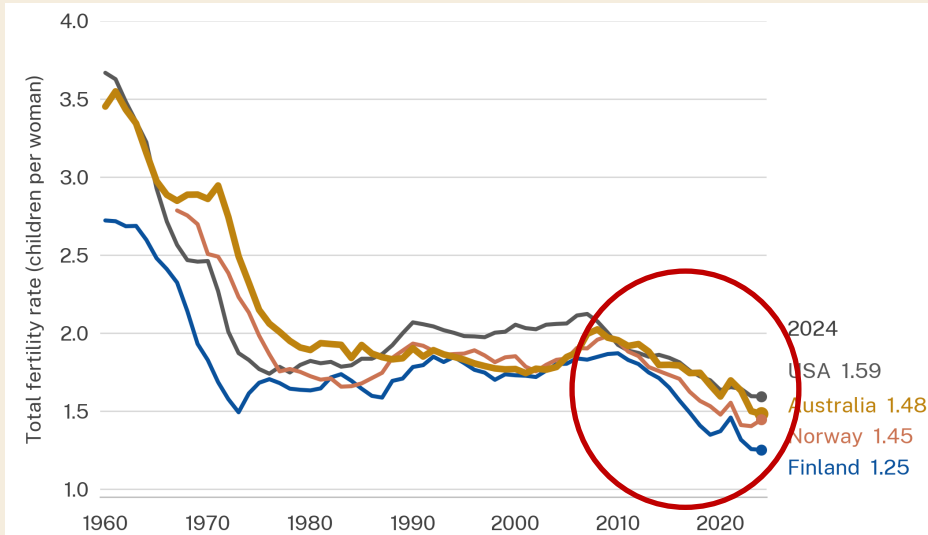
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Fertility motivations also falling: Finland (Golovina et al. 2023),
Norway (Dommermuth et al. 2025), USA (Hartnett & Gemmill 2020)



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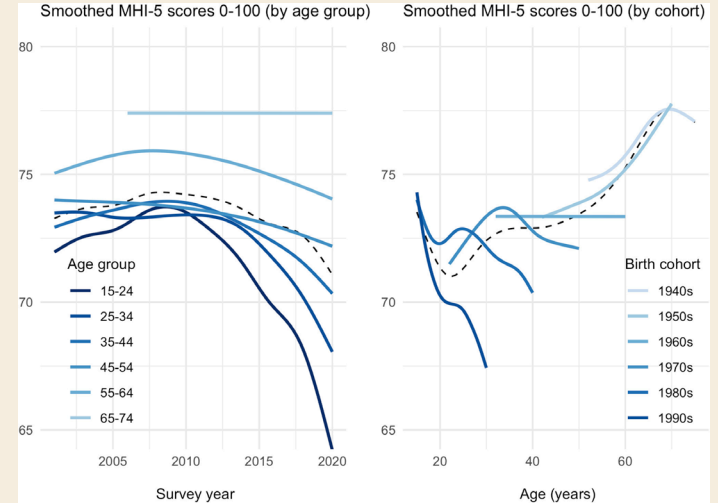
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Mental Health Worsening



Australia: Each subsequent generation reports worse mental health, especially among **young adults** (Botha et al. 2023)



Introduction:are they connected?



Fertility motivations falling



Mental health worsening



Introduction:are they connected?



Fertility motivations falling



Mental health worsening

Prior literature:

Severe mental illness is linked to fewer children in the UK (Hope et al. 2020), Scotland (MacBeth et al. 2023) and Finland (Golovina et al. 2023)

Poor mental health is linked to lower expected family size in Australia (Lazzari & Beaujouan 2025)

Yet, psychological mechanisms are still rarely considered in research on fertility (McAllister et al. 2016) or discussed as underpinning fertility motivations or motivation change

Research gap on mental health-fertility motivation link, especially on how it changed over cohorts



Research Questions



- 1 Does poor mental health predict intending to remain childfree among young people aged 18-24?



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- 2 Has this links changed across the 1980s, 1990s and 2000s birth cohorts?



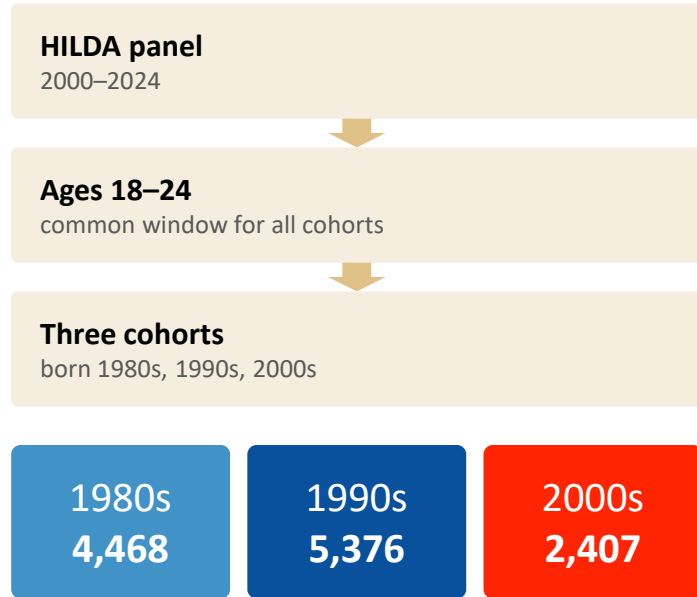
Research Questions



- 1 Does poor mental health predict intending to remain childfree among young people aged 18-24?
- 2 Has this links changed across the 1980s, 1990s and 2000s birth cohorts?
- 3 Does mental health predict the gap between how strongly people desire versus how strongly they expect to have a(nother) child & are there cohort differences in the link?



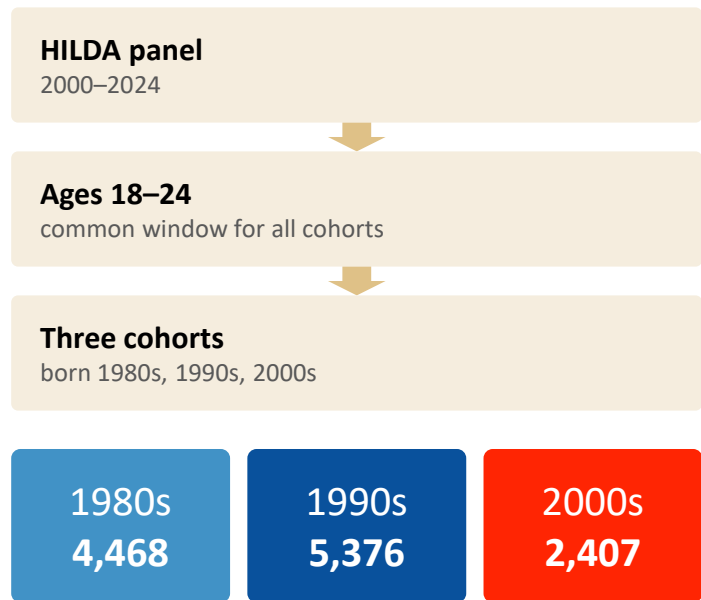
Data & Sample: HILDA: 12,251 young adults aged 18-24 across three birth cohorts



Respondents per cohort (~50% female in each)



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Table 1 Sample characteristics by birth cohort

	1980s	1990s	2000s	p
Female	50%	51%	50%	0.50
Age, median	21.0	21.0	19.5	<.001
Coupled	37%	38%	22%	<.001
Parent	15%	13%	4.9%	<.001
Degree	18%	19%	9.7%	<.001
Highschool	50%	54%	59%	
No Year 12	31%	27%	31%	

Education shares sum to 100% within cohort; p from Pearson chi-squared / Kruskal-Wallis tests.



Measures: Outcome (Fertility Intentions) and Key Predictor (Mental Health)



Outcome: fertility intentions

1

Childfree intending

Currently childless and intends zero future children (binary)

2

Desire–expectation gap δ

$\delta = \text{iclike} - \text{icexpect}$: Strength of desire for more children minus strength of expectation of having kids, each rated 1 to 10



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Predictor: mental health

MHI-5

scored 0–100

Higher scores = better mental health



Between-person (Level 2)

each person's mean MHI-5 across waves versus others

Who is different?

Compares people with generally better vs worse mental health

Within-person (Level 1)

a person's deviation in mental health from own mean over time

What changes?

Follows the same person when their own mental health rises or falls



Analytic Strategy

1 Mental health by cohort

Linear mixed model (LMM): MHI-5 by cohort $\times$ sex

2 Childfree by cohort

Logit GLMM, person random intercept; age + cohort, by sex

3 Mental health $\times$ cohort

Mundlak-hybrid multilevel logit; cohort $\times$ between and cohort $\times$ within; smooth age; GAM check

4 Decomposition

Counterfactual split of the cohort gap: composition vs coefficients; cluster bootstrap

5 Desire–expectation gap (δ) $\times$ cohort

Multilevel model per cohort; between- and within-person MH; penalized cubic spline for age



Descriptive Finding 1: Recent cohorts report worse mental health



Mean MHI-5 gap to the 1980s cohort

−8.8

2000s women ($p < .001$); 1990s women −3.3

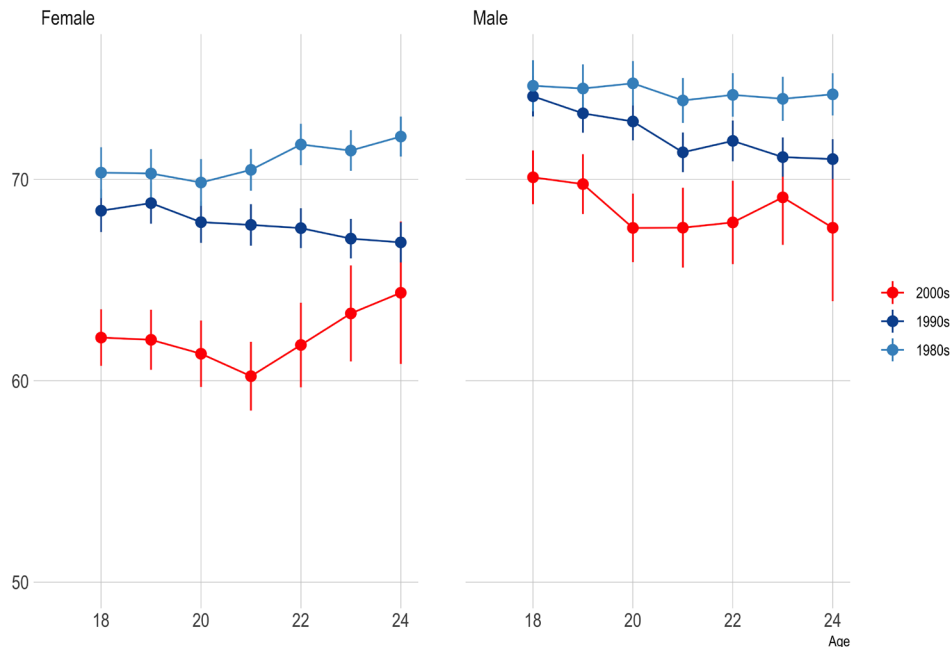
−5.3

2000s men; 1990s men −1.9

3.4

women–men gap in the 1980s cohort;
widens to 4.7 (1990s) and 6.9 (2000s)

Linear mixed model. Women are lower than men in every cohort; the sex gap is largest in Gen Z.

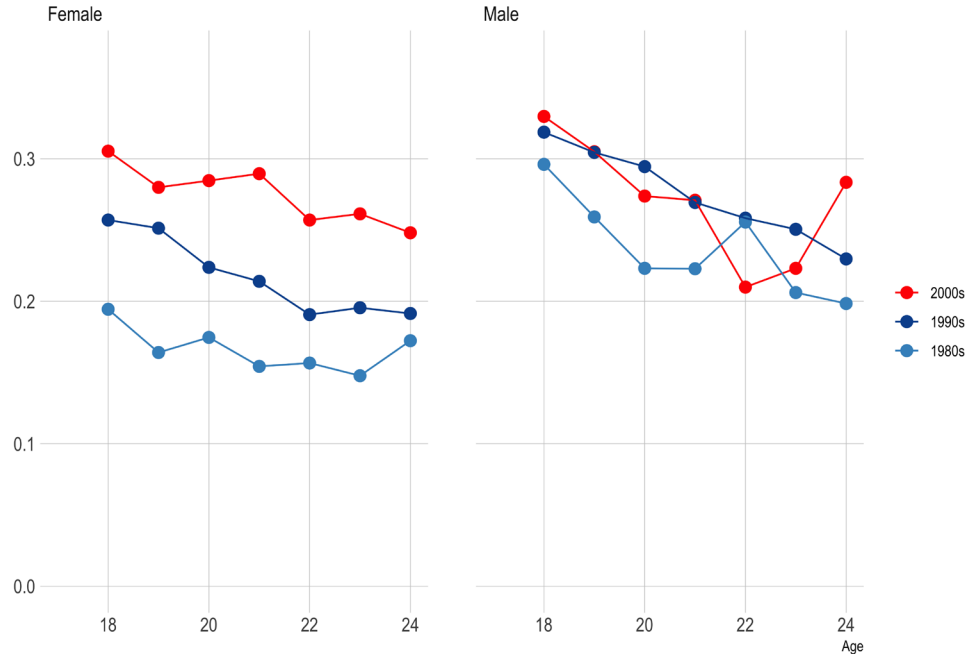


Mean MHI-5 (0–100) with 95% CIs; HILDA, ages 18–23

Higher scores mean better mental health



Descriptive Finding 2: Childfree desires increase with each subsequent birth cohort for women



Share childless & intending zero children; ages 18–23

Predicted childfree desire at age 20, vs 1980s cohort based on our model:

+7.0 pp

2000s cohort: $p < .001$

+2.1 pp

1990s cohort: $p < .001$

These differences are smaller than the observed ones

Men

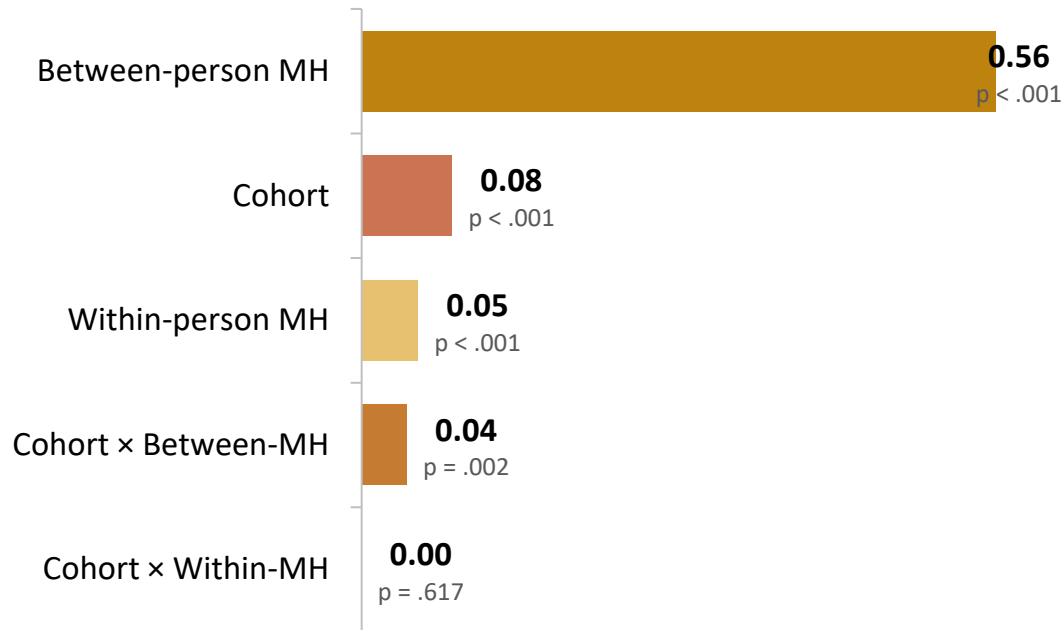
No significant cohort differences (lowest $p = .116$).



(3) Mundlak Model: mental health predicts childfree intentions



Effect size (partial η^2) for each model term



Both components matter

→ Better average MH, or a good spell relative to own average, goes with lower odds of intending to stay childfree

Cohort $\times$ Between-MH: $p = .002$

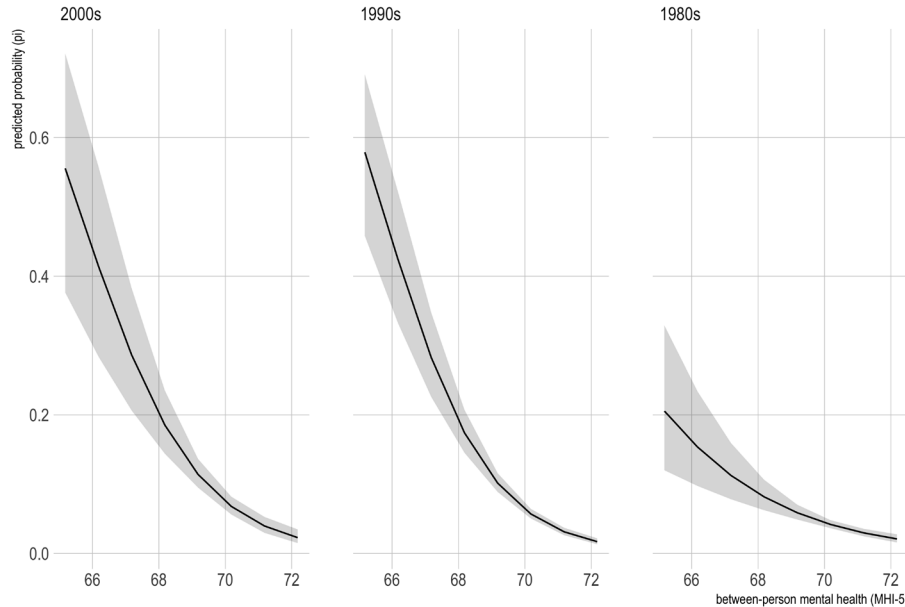
→ Between effect clearly differs across cohorts

Cohort $\times$ Within-MH: $p = .617$

→ Within effect does NOT differ across cohorts



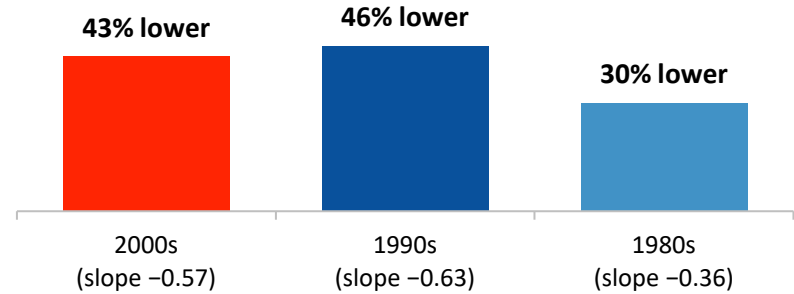
(3) Mundlak Model Cohort Differences: **between-person link stronger in 1990s than 1980s**



HILDA: 2001–2024, $n = 9,389$

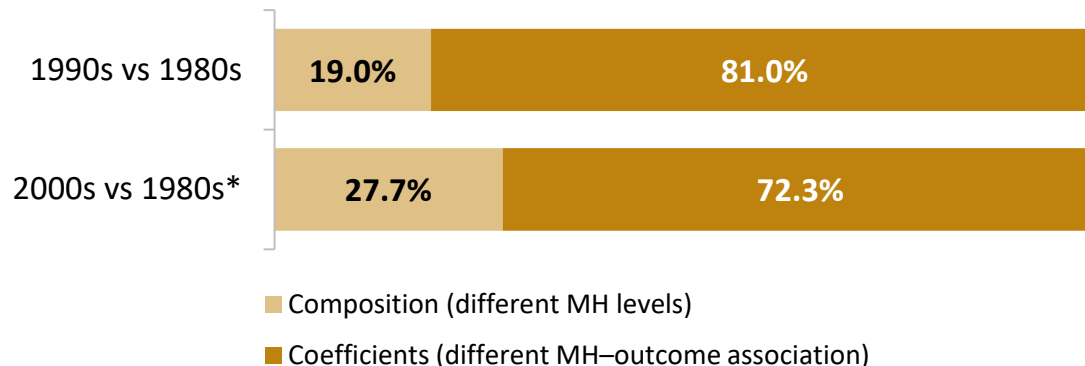
Predicted $P(\text{childfree})$; HILDA 2001–2024, $n = 9,389$

Per +1 point of average mental health, the odds of intending to stay childfree are...



(4) Decomposition Analysis

Decomposing the cohort gap in predicted childfree intention probability (%)



95% CI	1990s vs 1980s	2000s vs 1980s*
Composition	[12.5, 27.6]	[17.8, 42.2]
Coefficients	[72.4, 87.5]	[57.8, 82.2]

Note. MH = mental health. 1990s vs 1980s: average of two reference-group decompositions, bootstrapped (1,000 resamples clustered by respondent). 2000s vs 1980s not significant in the primary model ($p = .68$); shown for reference only.

1990s vs 1980s

Total gap ≈ 5.25 pp.

Composition: cohorts differ in average MH.

Coefficients: MH relates differently to childfree intentions across cohorts.

2000s vs 1980s* — prior estimate

*Based on the prior sample (HILDA waves 2000–2023).

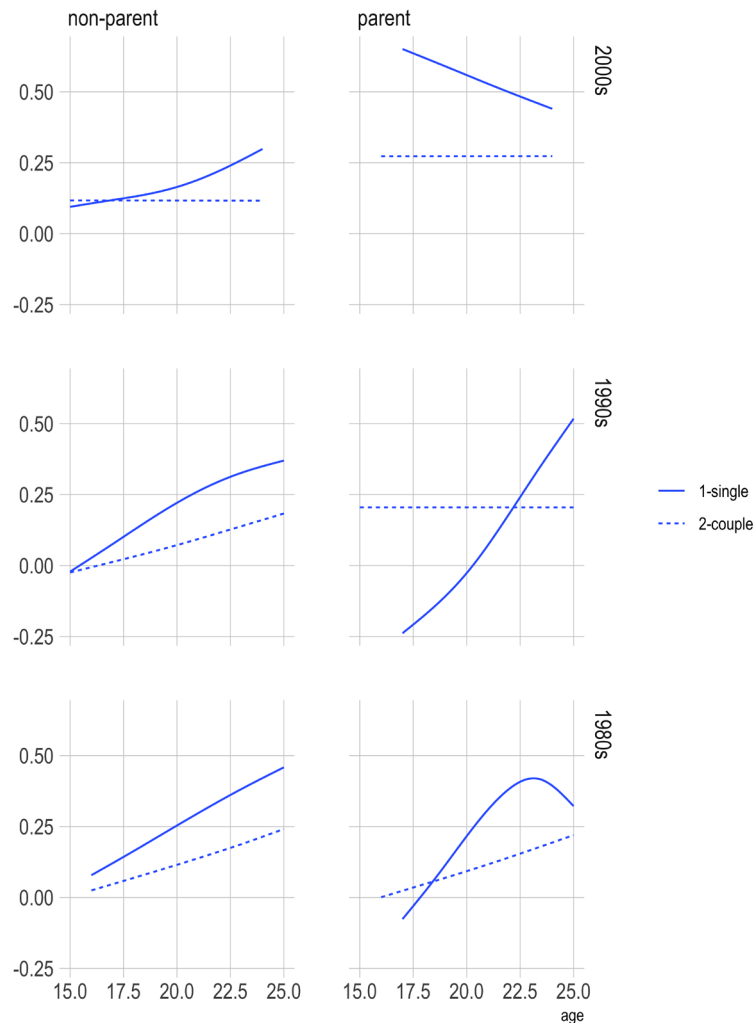


(5) Desire–expectation gap: descriptive

Singles > couples: singles may desire children but cannot expect them while single

Non-parents > parents: the gap is larger before a first birth

Rows are birth cohorts (2000s, 1990s, 1980s); solid = single, dashed = couple



(5) Desire–expectation gap and mental health x cohort

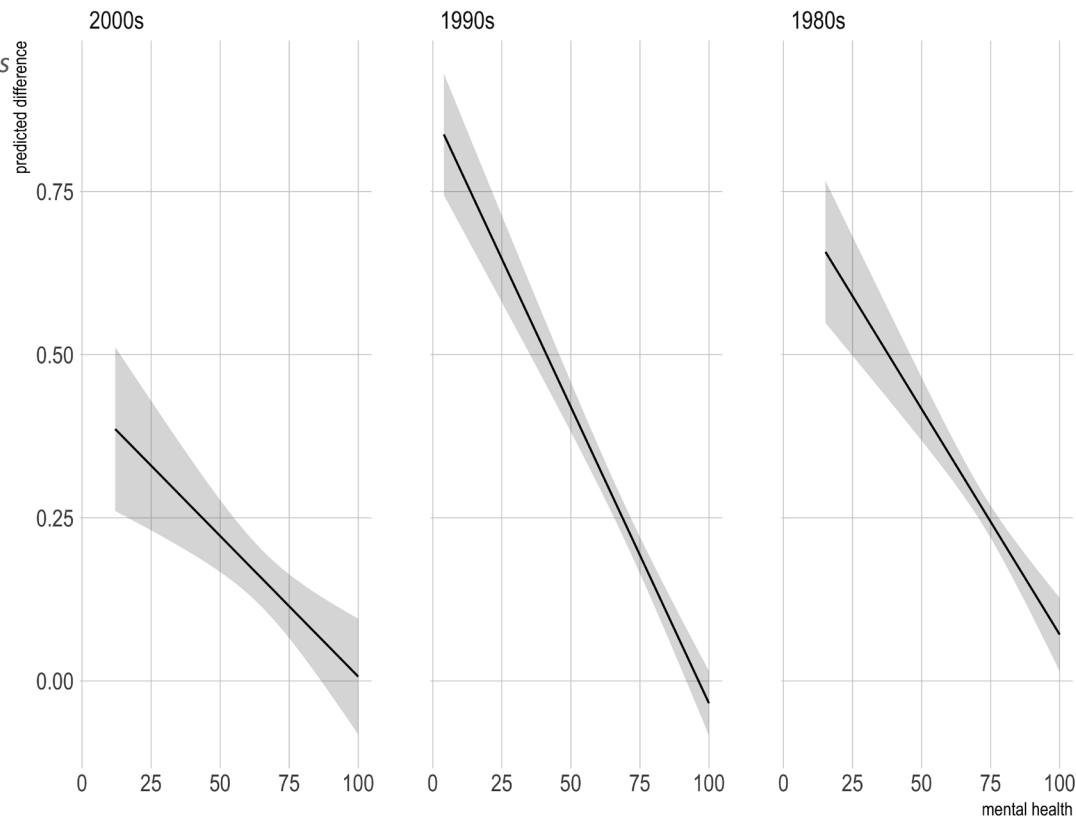
δ = desire – expectation (each rated 1–10; larger δ = wants more than expects)

Lower mental health, larger gap in every cohort panel

Between-person MH explains more than within-person (both significant)

No apparent cohort difference in this association

Wider sample than the childfree analysis: larger age range, parents included



Predicted δ by MHI-5; HILDA 2001–2024, N = 25,698

HILDA: 2001–2024, N = 25,698



Summary



1 Childfree desires and mental health falling in parallel—especially among women

Mental health is lower in each subsequent cohort (and lower among women).

Intention to have children is lower in each subsequent cohort of young women as well

2 Trends are linked

Poorer mental health predicts both childfree intentions and a larger desire–expectation gap, between and within persons.

3 Mental health-childfree desire link strengthens over cohorts

The between-person association is clearly stronger in the 1990s than the 1980s cohort ($p = .002$), and marginally stronger in the 2000s cohort ($p = .091$).

But no change in the within-person link, or in the mental health & desire/expectation gap link

4 Mental health level changes are only a minor reason for strengthening link

~81% of the 1980s–1990s difference in the mental health-childfree desire link is due to a stronger association, ~19% due to lower average mental health.



Discussion: Potential Mechanisms



Why would mental health matter?

Partnering?

Harder to form or keep partners; partnership worries

Health worries?

Too unwell to parent; pregnancy and heredity concerns

Common causes?

Adverse childhood experiences, poor general health

Something else?

Other shared root causes, e.g. beauty/body-image pressures

Desire expectation gap: income or occupational stability concerns



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Why might the mental health-childfree link have strengthened?

Weakening reproductive norms?

Less pressure to have children whatever one's circumstances

Intensive parenting ideals?

Psychological readiness as precondition for parenthood
expectations growing

Partnering as mediator?

Poor MH may mean fewer partners (or interest in partnering) now than in the past

Uncertain futures?

Growing worries about precarity may weigh more on those with poor MH in younger cohorts

Something else?

These shared pressures may also be intensifying across cohorts



Conclusions & Limitations

- Strong and significant link between poorer mental health & childfree intentions, and lower expected realization of fertility desires
- Worsening mental health levels and especially strengthening association seem to contribute to growing childfree desires among younger generations
- Associations only: reverse causality and common causes possible, no mechanisms tested
- Decomposition is exploratory, bivariate models with no covariates yet
- More future research needed to explore this link & its mechanisms



Thank you



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