







Community factors impact on mental health service use: A bi-national study of young people in Ireland and Scotland.





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Background



15-25% of young people experience mental health problems

15-30% use mental health services.



Barriers to access

1. Stigma
2. Poor mental health literacy
3. Cost
4. Logistic barriers

Largely focused on individual-level factors

Background













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Aims

Our aim was to:

examine the relationship between community factors and mental health service use within:

1) Two community samples

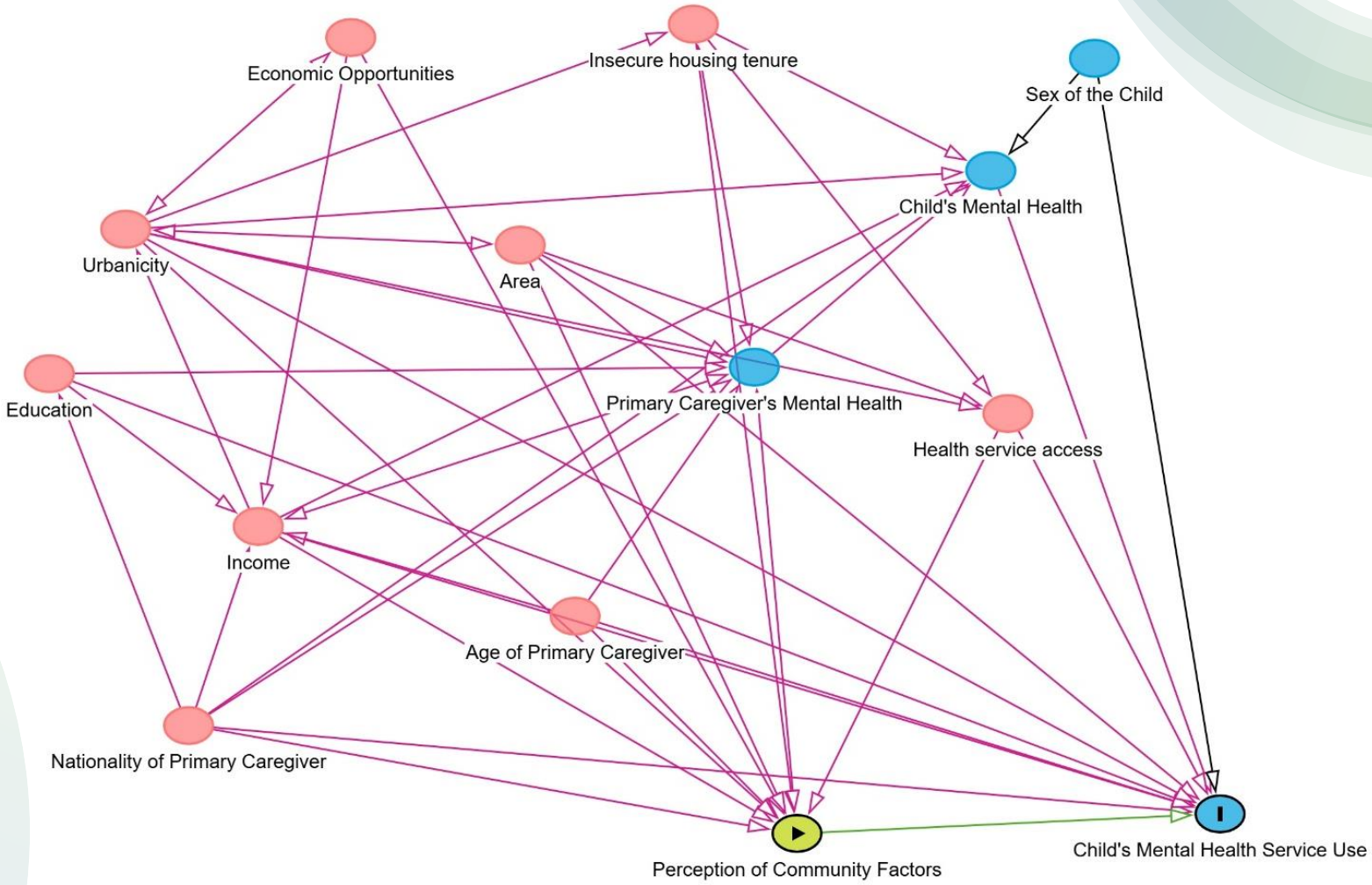
2) Among the subsample of young people in these community samples who report mental health problems.

Method: TTE Framework

Protocol component	Hypothetical trial	Emulated trial
Settling and eligibility criteria	Randomise children (age 9 and 13) with mental problems to communities that have score high or low on perceived degradation. Specific factors are listed above	Identify children with emotional or behavioural difficulties (see flow chart) that reside in communities with high and low perceived degradation of the local area. Specific factors are listed above
Exclusion Criteria	Prior mental health service use at age-9/13	Prior mental service use at age-9 (GUI) and age-14 (GUS)
Treatment strategies	Randomisation to a community that score well or poorly on community characteristics.	Treatment grouping follows the same criteria as the hypothetical trial. However, given community factors do not necessarily overlap we investigate each community characteristic separately.
Assignment procedure	Single blind trial (researcher blind) - randomised to a treatment strategy.	Treatment assignment is not randomized but based on observed data of clinical decisions. To create conditional randomization, we are adjusting for confounders which are associated with both the exposure and the outcome (See Directed acyclic graph).
Confounders	No adjustment. Randomisation used to achieve treatment group comparability at the time of assignment.	See directed acyclic graph for confounder list and assumed structure.
Outcome(s)	Mental health service use age 13/17.	Mental health service use reported at age 13 (the last 12 months, GUI) and reported at age 17 (last four years, GUS).
Follow-up End	Outcome at age 13/17.	Same as hypothetical trial
Causal contrast of interest	Intention to treat effect (ITT, treatment assignment)	Observational analogue of intention-to-treat/harm effect for exposure to community characteristics.
Estimand	The likelihood of mental health service use among those randomised to varying levels of community degradation.	The conditional likelihood of mental health service use (ITT) in early and late adolescence among those with varying levels of exposure to different community characteristics during childhood and adolescence.
Statistical methods	Logistic regression reporting odds of service use at follow up.	An inverse probability weighted logistic regression reporting odds of service use at follow-up.

Hernan et al., 2025

Method: Directed Acyclic Graph



Method: Participants and mental health indicator



Growing Up in Ireland
National Longitudinal Study of Children

Cohort 08': Age 13 - SDQ Parent reported Mental health indicator



"High" band on either the internalising or externalising SDQ subscales.

growing up in Scotland



Birth Cohort 1: Age 17 - SDQ Child reported Mental health Indicator

Method: Sampling frame









Growing Up in Ireland Cohort 08' Wave 5 & 6 data n=6,350

Excluded n=5,422

Current (age 13) emotional or behavioural difficulty n=928

Excluded n=154

No history of mental health service use n=774

Current (age 13) mental health service use
No: n=528
Yes: n=242

Growing Up in Scotland Birth Cohort 1 Sweeps 10 & 11 n=1,647

Excluded n=1,081

Current (age 17) emotional or behavioural difficulty n=566

Excluded n=138

No history of mental health service use n=428

Current (age 17) mental health service use
No: n=297
Yes: n=130

Method: Community factors and Mental Health Service Use

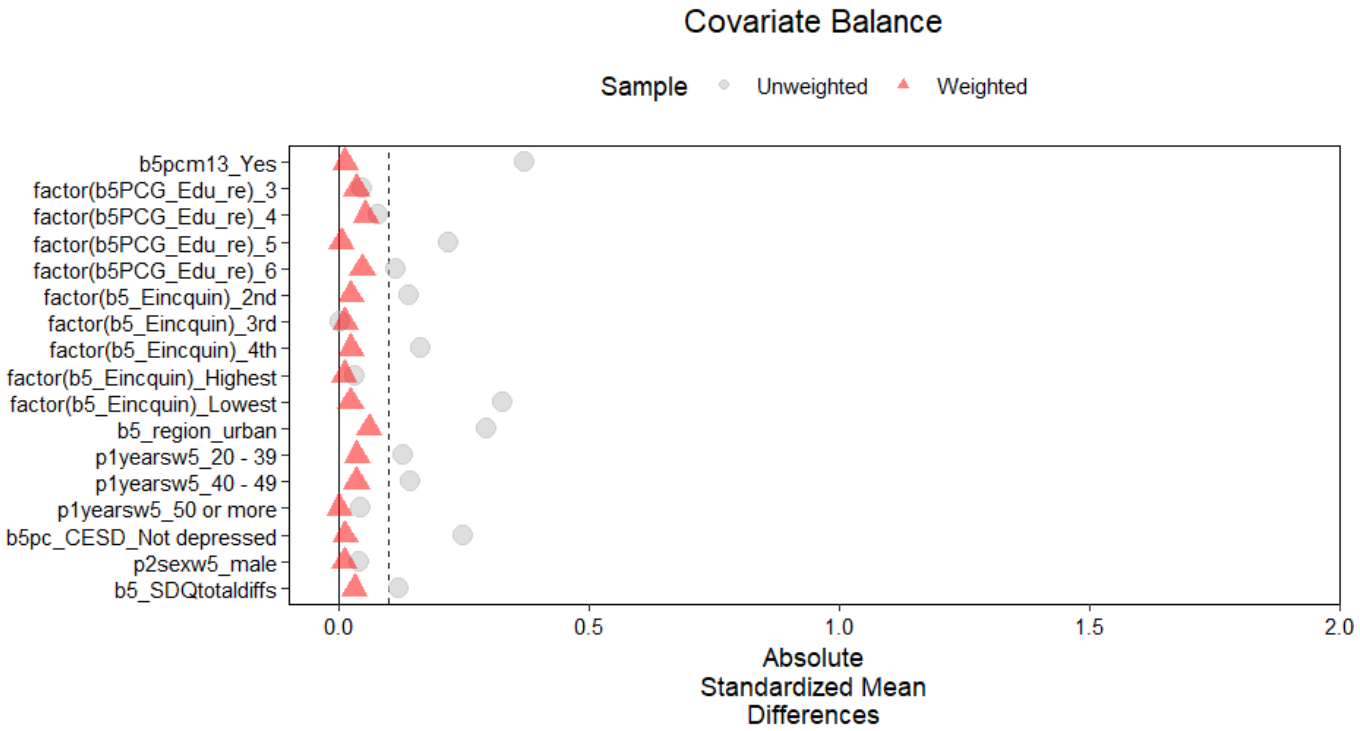
Community Factors	GUI	GUS
Negative Community Factors		
Crime or Violence	✓	
Neighbourhood unsafe	✓	✓
Lack of Neighbourhood Trust	✓	
Lack of Neighbourhood Identity	✓	
Neighbourhood Disputes		✓
Positive Community Factors		
Green Space available	✓	✓
Safe place for hang out	✓	
Local Facilities available	✓	✓

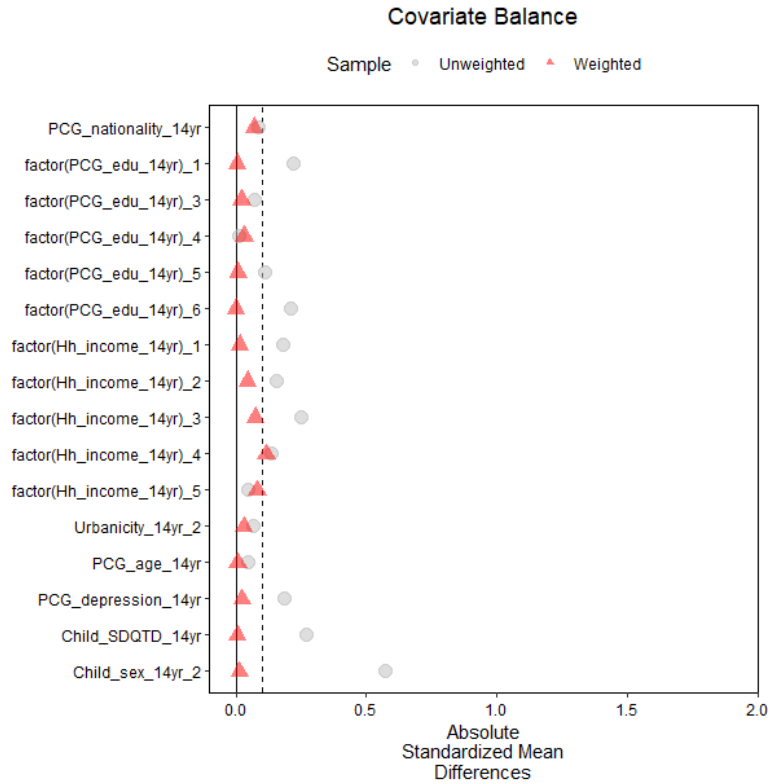
Service use: Based on an interaction with doctor or allied health care professional about mental health difficulties.



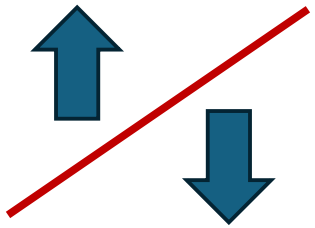
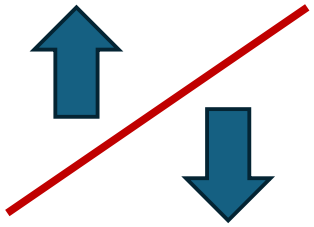
Method: Analysis

1) Whole sample analysis
2) Analysis stratified by those indicated for MHS
    I. IPW logistic regression
    II. Outcome – Conditional odds ratios





Results: Descriptives

	Growing Up in Ireland National Longitudinal Study of Children	growing up in Scotland
	Age 13	**Age 17**
	**14.6%**	**33.7%**
	**31.4%**	**30.3%**
		

Results: Overall sample results



Factors	GUI OR CI	GUS OR CI
Crime or Violence	**2.22** (1.46 -3.37)	-
Neighbourhood unsafe	**2.43** (1.57-3.79)	**1.92** (1.44-2.54)
Lack of Neighbourhood Trust	**1.89** (1.11-3.24)	-
Lack of Neighbourhood Identity	**1.88** (1.32-2.66)	-
Neighbourhood Disputes	-	1.39 (0.82, 2.28)
Green Space available	0.92 (0.77-1.39)	0.79 (0.55, 1.15)
Safe place for hang out	**0.77** (0.60-0.99)	-
Local Facilities available	0.75 (0.57-1.01)	**0.73** (0.57, 0.94)

Results: Indicated sample results





Factors	GUI Adj OR CI	GUS Adj OR CI
Crime or Violence	1.15 (0.33-3.96)	-
Neighbourhood unsafe	0.64 (0.24-1.72)	0.95 (0.86, 1.06)
Lack of Neighbourhood Trust	2.25 (0.51-9.93)	-
Lack of Neighbourhood Identity	0.92 (0.51-1.66)	-
Neighbourhood Disputes	-	1.16 (0.92, 1.47)
Green Space available	1.49 (0.62-3.56)	**1.15** (1.01, 1.31)
Safe place for hang out	1.51 (0.94-2.42)	-
Local Facilities available	0.99 (0.59-1.66)	0.97 (0.88, 1.07)

Discussion: Overview

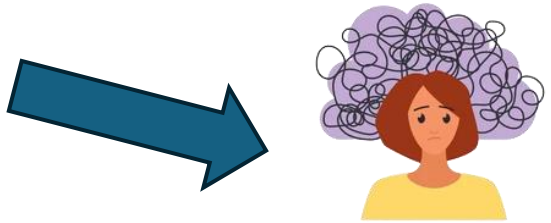
















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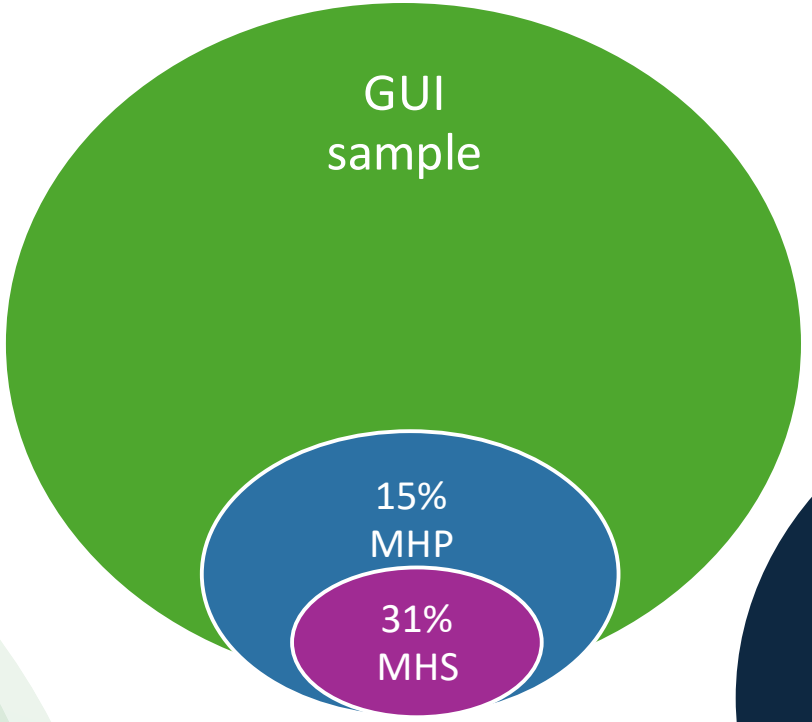
growing up in Scotland





Discussion: Other points of observation

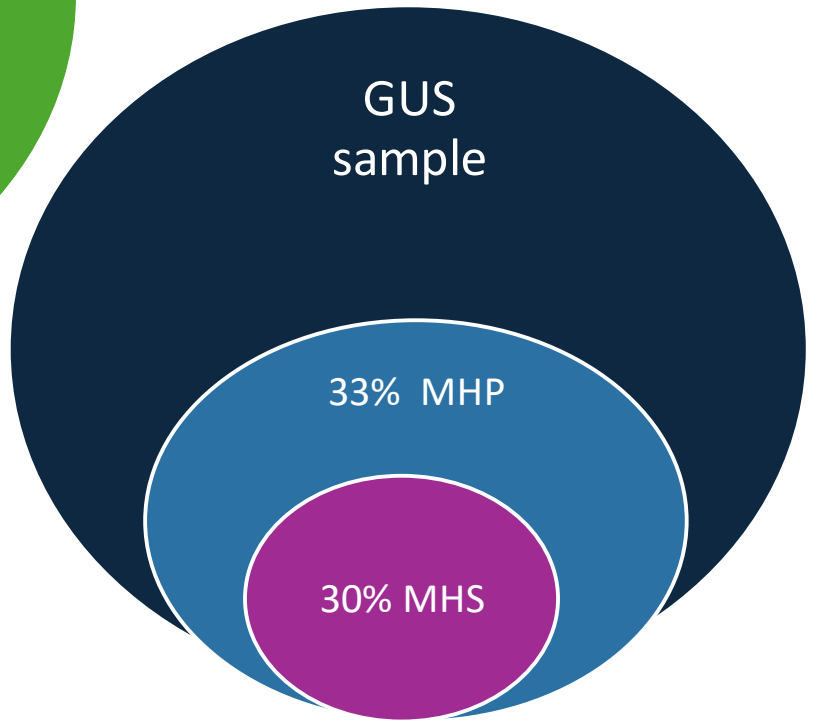




Age 13



Age 17



International Comparaison: Matthews et al., (2024): 15-25%

Discussion: Strengths & Limitations



- Two large longitudinal prospective cohorts.
- Deep phenotyping and good use of methods.
- The SDQ doesn’t capture all of mental health service need.
- Finally our use of TTE was only to aid in our analytical decisions. This study is observational and should not be interpreted as a causal effect.



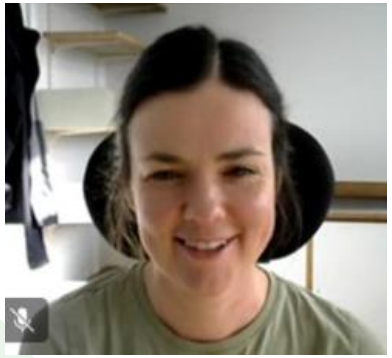
Discussion: Conclusion



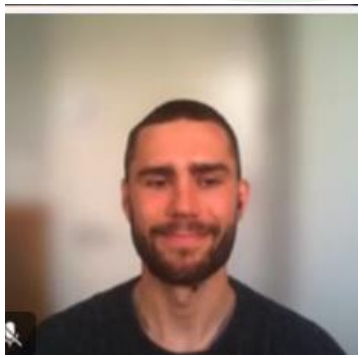
- Overall samples we observed a relationship between community factors and mental health service use.
- However among those with mental health problem, indicated for service use, there is little relationship between the factors.
- This suggests that while improving factors like community cohesion are unlikely to reduce barriers to mental health service use for those in need (but may improve the need in the first place).



Thanks and Questions







HAPPY TO TAKE ANY QUESTIONS

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