Differences in social connection across urban and rural Scotland.

Dr Emily Long

MRC/CSO Social and Public Health Sciences Unit
University of Glasgow

Social connectivity is a critical public health issue

Three key concepts

➢ **Social networks:** patterns of relationships between people

➢ **Loneliness:** discrepancy between desired and existing relationships

➢ **Social support:** exchange of emotional support

Our Study

The Social Determinants of Health — MRC/CSO Social and Public Health Sciences Unit

Relationships

Places

Social Connections, Health, & Wellbeing in Scotland Study

➢ **Overarching goal**: provide new insight into the role of 'place' in shaping:

  ➢ Social networks
  ➢ Loneliness
  ➢ Social support

➢ Examine links with wellbeing

➢ Understanding place differences to inform local solutions

Social Connections, Health, & Wellbeing in Scotland Study

➢ Conducted April - July 2021

➢ Adults living in either:

Glasgow

Rural Highland

Urban vs Rural

Glasgow

- Category 1 of the *Scottish Government 6-fold classification*

- "Large, urban area"

- > 600,000 residents

Highlands

- Categories 5 & 6

- "Remote rural", "Accessible rural"

- < 3000 residents

Study Aims

1. Measure differences in social networks, loneliness, and social support between urban/rural participants.

2. Test links to wellbeing.

3. Examine differences in these associations between the two locations.

Study Design

➤ Adults aged 16+

Part 1: ~ 300 participants completed an online survey
        - Answered demographic, health, & relationship questions

Part 2: A subsample of ~ 50 did follow-up, Zoom interviews
        - More detailed social network questions

➤ Recruited through stratified mailers, project partners, and social media

➤ Study designed in consultation with various local & national partners

Constructing a social network

1. Series of questions gathering names of social contacts
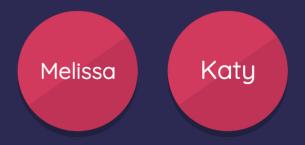2. Series of questions asking about these relationships and people

The networks we gathered

Please name the people with whom you have spent time with or socialised with *in the last month*.

Bill Bob Sue Susan Anne Mom Dad Mike

Are there other people whom you consider yourself to be connected to, but you have not seen or spoken to in the last month?

Melissa Katy

Key Measures

➢ Social networks
  ➢ Age
  ➢ Gender
  ➢ Relationship type
  ➢ Closeness
  ➢ Proximity
  ➢ Alter-alter ties

➢ Loneliness (single-item)
➢ Social support (3-item scale)

➢ Outcome: Wellbeing (3 items from ONS scale)

Results – Who took part in the study?

Participant demographics

Parameter	Total sample	Urban	Rural	P-value
Sample size	219	99	120	
Age	49	43	54	<0.001
Gender (woman)	71%	63%	78%	<0.05
Heterosexual	84%	75%	93%	<0.01
British	91%	82%	98%	<0.001
Live alone	30%	32%	29%	0.78
Education – completed university	45%	35%	54%	<0.001
Perceived SES	2.99	2.92	3.05	0.64
Broadband	3.81	4.12	3.52	<0.001
General health	2.29	2.34	2.24	0.46
Wellbeing	7.52	6.96	8.03	<0.01

Note: p-values are from two-tailed t-tests for continuous variables and chi-square tests for categorical variables.

Rural = more likely to be women, older, heterosexual, and British

Rural = more educated

Rural = worse internet

Urban = lower wellbeing

Results – Were there differences in social connections?

Differences in social networks

Parameter	Total sample	Urban	Rural	P-value
Network size	11.23	10.7	11.7	0.16
Interaction network	9.43	9.13	9.70	0.38
Peripheral network	1.80	1.55	2.03	<0.05
Density	0.43	0.41	0.45	0.26
Average closeness	3.69	3.76	3.62	0.14
Diversity of ties	1.52	1.44	1.60	0.08
Proportion of family ties	0.34	0.34	0.34	0.90
Proximity	2.95	3.00	2.91	0.45
Proportion of local ties	0.12	0.11	0.12	0.41
Age EI	0.23	0.13	0.33	<0.05
Age diversity	1.58	1.42	1.72	<0.001
Gender EI	-0.21	-0.15	-0.26	0.11
Gender diversity	0.82	0.80	0.83	0.60

Note: p-values are from two-tailed t-tests for continuous variables and chi-square tests for categorical variables.

Rural = more people in wider network

Rural = more dense interaction networks

Rural = more variability in ages

Differences in Loneliness & Social Support

Parameter	Total sample	Urban	Rural	P-value
Loneliness	8% often or always	10%	6%	<0.05
Social support	6.88	6.99	6.77	0.45
Note: p-values are from two-tailed t-tests for continuous variables and chi-square tests for categorical variables.				

Urban = more lonely

Results – Links to wellbeing

Associations with Wellbeing

Parameter	Estimates from final model
Loneliness	-0.505*** (0.144)
Social support	0.220* (0.109)
Meet up	0.020 (0.116)
Network size	0.030 (0.035)
Closeness	0.492* (0.235)
Relationship diversity	0.096 (0.256)
Age category	-0.117 (0.104)
Location (Urban)	-0.933** (0.304)
Gender (male)	0.535 (0.323)
Heterosexual	0.176 (0.433)
Finances	0.676*** (0.172)
General health	0.426** (0.153)
Digital connection	0.028 (0.142)

More lonely = worse wellbeing

More support = better wellbeing

Closer network ties = better wellbeing

Urban = worse wellbeing

Better finances/health = greater wellbeing

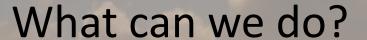| Parameter	Estimates from final model
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Heterosexual	0.176 (0.433)
Finances	0.676*** (0.172)
General health	0.426** (0.153)
Digital connection	0.028 (0.142)

Urban/rural differences

No significant interactions!

No differences between areas.

Summary of Results

➢ Some evidence of differences in social networks

➢ Differences in loneliness

➢ No difference in social support

➢ Networks, loneliness, & social support important for wellbeing

  ➢ Emotional closeness of relationships seems to be the most important

➢ No urban-rural differences in associations

What does this mean?

➢ Places seem to affect social connectivity

➢ But regardless of place, relationships matter for wellbeing

➢ Perceptions of relationships more important than quantity of ties or network structure/composition

What can we do?

➢ Invest in relational approaches to wellbeing

➢ Focus on better understanding urban context

➢ Ensure that interventions promote building close, supportive relationships

Thank you!

Study link: https://link.springer.com/article/10.1007/s10389-024-02236-9

Email: Emily.Long@glasgow.ac.uk