Informal Unpaid Caring and Mental Health of Caregivers in Scotland

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Objectives & design

Background

Informal unpaid caring such as by parents to children can influence the psychological well-being to caregivers by crowding out their paid work commitments and leisure activities, especially when such caring is highly intensive and time consuming.

What this research does

This research explores the effect of informal unpaid caring on mental health of care-providers.

Design

Data

A pool of Scottish Health Survey 2012-2018

Observations: 5158

Methods

Ordinary Least Squares

$$Anxiety = \beta_0 + \beta_1 Care_i + \Sigma\beta_2 X_i + \varepsilon_i, \quad (1)$$
$$Depression = \beta_0 + \beta_1 Care_i + \Sigma\beta_2 X_i + \varepsilon_i, \quad (2)$$

where β_1 in the equation (1) reflects the effect of informal unpaid care on anxiety, while β_1 in the equation (2) measures the effect of this care on depression.

Key variables & results

Measurements

Mental health

- Anxiety: status and duration
- Depression: status and duration

Informal unpaid caring

- Provision
- Weekly frequency
- Annual frequency

Control variables

Age, gender, education, marital status, household income quintile, household size, and region

Results

Care provision & anxiety

Figure 1: Results of informal unpaid care provision and anxiety

VARIABLES	(1) Having anxiety	(2) Having severe anxiety	(3) Having long lasting anxiety
Informal unpaid care	0.139***	0.156*	0.526*
	(0.0330)	(0.0820)	(0.280)
Constant	0.200***	0.463***	2.377***
	(0.0251)	(0.0668)	(0.245)
Observations	5158	5158	5158
R-squared	0.021	0.005	0.013

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. These apply to all tables.

- Informal unpaid carers are more likely to feel anxious (13.9%), and to have severe (15.6%) and lasting (52.6%) symptoms.

Results

Care frequency & anxiety

Figure 2: Results of informal unpaid care frequency and anxiety

VARIABLES	(1) Having anxiety	(2) Having severe anxiety	(3) Having long lasting anxiety
Caring up to 4 hours/week	0.0671	0.0155	0.0413
	(0.0431)	(0.0990)	(0.361)
Caring 5 to 10 hours/week	0.141***	0.114	0.473
	(0.0434)	(0.1000)	(0.332)
Caring 20 to 34 hours/week	0.126*	0.119	0.623
	(0.0761)	(0.166)	(0.537)
Caring over 35 hours	0.452***	0.842***	0.873*
	(0.103)	(0.280)	(0.491)
Constant	0.200***	0.463***	2.377***
	(0.0252)	(0.0670)	(0.247)
Observations	5158	5158	5158
R-squared	0.043	0.026	0.049

- When this caring takes over 35 hours per week, carers confront the 87.3% higher possibility of having a long-term anxiety.

Care provision & depression

- No significant coefficients.

Care frequency & depression

Figure 3: Results of informal unpaid care provision and depression

VARIABLES	(1) Having depression	(2) Having severe depression	(3) Having long lasting depression
Caring less than a year	0.302*	0.607*	2.055**
	(0.160)	(0.362)	(0.879)
Caring 1 to 5 years	0.117*	0.318**	0.782
	(0.0660)	(0.144)	(0.605)
Caring 5 to 10 years	0.154*	0.301*	0.822
	(0.0809)	(0.159)	(0.657)
Caring 10 to 20 years	0.121	0.388	1.282
	(0.101)	(0.247)	(0.964)
Caring over 20 years	0.264*	0.707*	1.305
	(0.140)	(0.364)	(1.031)
Constant	0.198***	0.293***	2.445***
	(0.0179)	(0.0304)	(0.208)
Observations	5158	5158	5158
R-squared	0.027	0.045	0.040

- Caring up to one year increases the status (0.302), the severity (0.607) and the long term (2.055) of depression to caregivers.
- Over-20-year caring adds the severity of depression (70.7%).

Results & conclusions

Subgroup results

Figure 4: Results of informal unpaid care provision, anxiety and depression (females)

VARIABLES	(1) Having anxiety	(2) Having severe anxiety	(3) Having long lasting anxiety	(4) Having depression	(5) Having severe depression	(6) Having long lasting depression
Informal unpaid care	0.233***	0.437***	0.934**	0.0462	0.104	0.488
	(0.0582)	(0.147)	(0.372)	(0.0536)	(0.111)	(0.591)
Constant	0.200***	0.463***	2.377***	0.220***	0.374***	2.836***
	(0.0252)	(0.0670)	(0.246)	(0.0261)	(0.0512)	(0.308)
Observations	2745	2745	2745	2745	2745	2745
R-squared	0.031	0.020	0.047	0.005	0.013	0.027

- Female carers are majorly affected by anxiety.

Figure 5: Results of informal unpaid care provision, anxiety and depression (low-income individuals)

VARIABLES	(1) Having anxiety	(2) Having severe anxiety	(3) Having long lasting anxiety	(4) Having depression	(5) Having severe depression	(6) Having long lasting depression
Informal unpaid care	0.0914**	0.298**	0.984***	0.155***	0.383***	1.071***
	(0.0457)	(0.119)	(0.287)	(0.0447)	(0.0968)	(0.397)
Constant	0.269***	0.496***	2.455***	0.198***	0.293***	2.445***
	(0.0198)	(0.0435)	(0.148)	(0.0178)	(0.0303)	(0.206)
Observations	1638	1638	1638	1638	1638	1638
R-squared	0.007	0.013	0.039	0.023	0.039	0.034

- Low-income carers risk both anxiety and depression.

Conclusions

- Anxiety including its severity and duration is positively linked with informal unpaid caregiving.
- Informal unpaid caring has a limited effect on depression.
- A supportive environment should be provided to female and low-income carers.