

Relationship Between Time of Informal Caregiving and Quantity of Formal Home Care Services

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Purpose of this study

To determine the type of relationship between the quantity of 10 different formal home care services and the time of informal caregiving.

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Definition of Home Care

A variety of services that allow people to live at home by preventing, replacing or postponing the need for admission into a long-term care or acute care institution.

Dumont-Lemasson, M., Donovan, C., & Wylie, M. (1999). *Provincial and territorial home care programs: A synthesis for Canada*. Retrieved April 3, 2005 from <http://www.hc-sc.gc.ca/homecare/english/pub.html#foll>.

10 types of Formal Service

- Home health aides
- Homemaking services
- Volunteer services
- Occupational therapy
- Day Care/ Day Hospital
- Nursing
- Meals
- Physical therapy
- Speech therapy
- Social work

Definition of Informal Care

- provided with no formal financial payment
- based on emotions such as love, responsibility and obligation that originates from family or community relationships
- meal preparation, housekeeping, maintenance/repair, grocery shopping, transportation, bills and banking, personal care, checking up and emotional support

Keating, N., Fast, J., Frederick, J., Cranswick, K., & Perrier, C. (1999). *Eldercare in Canada: Context, content and consequences*. Canada: Statistics Canada.

Conceptual Framework



Three Types of Relationships

Complementary

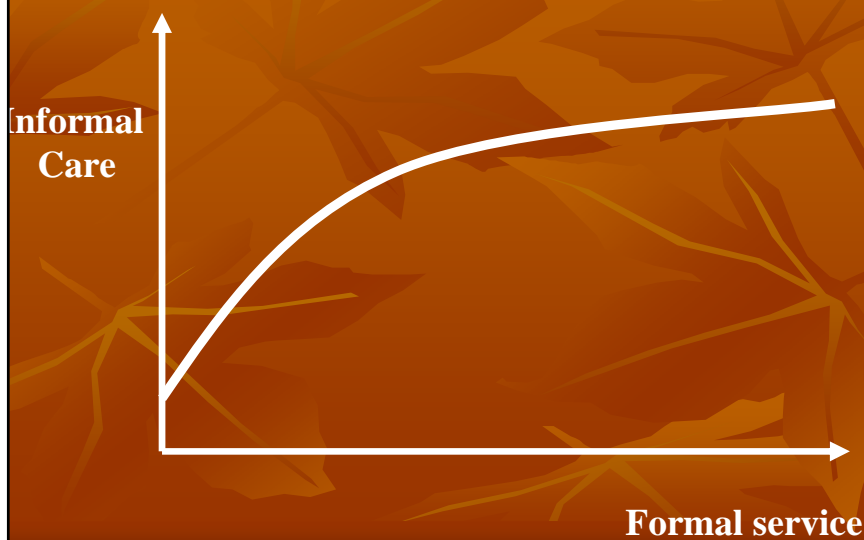
Substituting

No-relationship

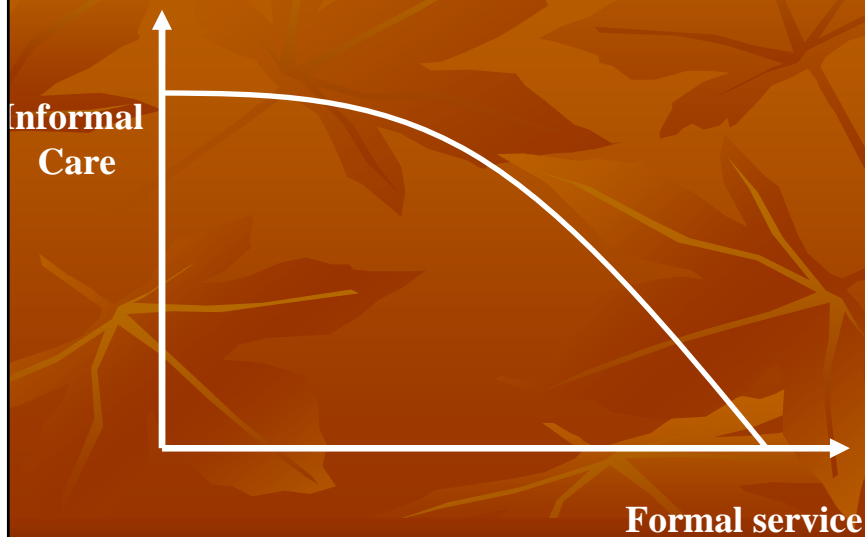
Pezzin, L., Kemper, P., & Reschovsky, J. (1996). Does publicly provided home care substitute for family care? *The Journal of Human Resources*, 31(3): 650-676.

Edelman, P., & Hughes, S. (1990). The impact of community care on provision of informal care to homebound elderly persons. *Journal of Gerontology*, 45(2), S74-S84.

Complementary Relationship

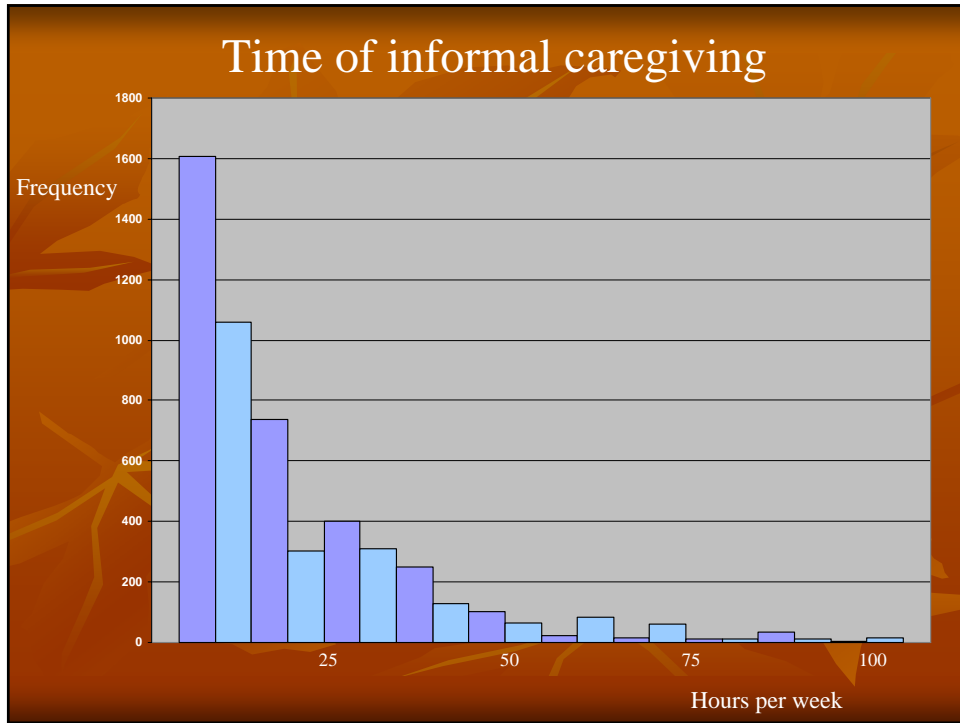


Substituting Relationship



Methodology

- Cross-sectional study
- 2000/2001
- Fourteen CCACs in Ontario
- Convenience sampling
- Trained assessors
- Minimum Data Set–Home Care (MDS-HC)
- Analysed with Logistic Regression Model



Opportunity costs of informal caregiving

\$4433 per year per client
(costing informal caregiving at minimum wage)

\$5491 per year per client
(costing informal caregiving at average housekeeper wage)

Variables in the regression model

- ***Client demographics***
 - Gender, age, marital status, education
- ***Client physical/functional characteristics***
 - IADL involvement scale, ADL hierarchy scale, Cognitive performance scale, wandering, resists care, dementia
- ***Client/caregiver dyad characteristics***
 - Who client lived with, number of caregivers living with client, relationship between caregiver and client
- ***Caregiver characteristic***
 - Caregiver expresses feelings of distress, anger or depression

Logistic Regression Results

Final regression model:

N = 5113

Chi-square = 3041.92

p < .05

R squared = .46

Significance of the independent variable

With the addition of the formal home care variables:

Change in model chi-Square = 221.18

Degrees of freedom = 55

$p < .05$

Change in R-squared = .019



Which services were substituting?

Home Health Aides

Odds Ratio = 0.84

95% confidence interval = (0.78 to 0.91)

For every additional visit by a home health aid per week, the client was 16% less likely to receive more than 20 hours of informal care per week.

Meals Service

Odds Ratio = 0.86

95% confidence interval (0.83 to 0.90)

For every additional hour per week of meals service, the client was 14% less likely to receive more than 20 hours of informal care per week.

**Which services were
complementary?**

Homemaking services

Odds Ratio = 1.07

95% confidence interval = 1.02 to 1.13

For every additional hour per week of homemaking services, the client was 7% more likely to receive more than 20 hours of informal care per week.

Occupational therapy

Odds Ratio = 1.62

95% confidence interval = 1.09 to 2.40

For every additional hour per week of occupational therapy, the client was 62% more likely to receive more than 20 hours of informal care per week.

Day care/day hospital

Odds Ratio = 1.28

95% confidence interval = 1.01 to 1.61

For every additional hour per week of day care/day hospital, the client was 28% more likely to receive more than 20 hours of informal care per week.

No-Relationship

Visiting nurses

Volunteer services

Physical Therapy

Speech Therapy

Social Work

How are these results useful?

Implications for

- case managers?
- health system managers?
- health policy makers?
- health service researchers?
- health resource allocation/funding?



Conclusions

- Informal caregivers provide a substantial amount of caregiving time and pay a considerable opportunity cost.
- The type of relationship between the quantity of home care services and informal caregiving time varies with the type of home care service.

Conclusions

- Home health aides and meals services have a *substituting* relationship with informal caregiving
- Homemaking services, occupational therapy, and day care/day hospital have a *complementary* relationship with informal caregiving.



Thank you