Economic evaluation of adult social care interventions: Reflections on lessons from three studies

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Structure

- Background and study rationale
- Role of economics and economic evaluation
- Study details
- Economic evaluation framework
  - Outcomes
  - Resource use and costs
  - Opportunity cost, trade-offs
- Lessons/reflections

Background and study rationale

- Introduction

Admiral Nursing (AN)	Vision rehabilitation (VR)	Hearing dogs (HDfDP)

- Why include an EE?
  - Does it work, at what cost?
- Why economic evaluation applied to these interventions?

- Why review these 3 studies?
  - Reflect on different study designs & EE methods used, & lessons

What is Economics? And health & care economics?

- Production, distribution and consumption of goods and services.
- Resources are scarce.
- Choices are made about how to use resources.
- If resources are put to one use, they cannot be put to another use.
- Inform decision-makers, in this case social care decision makers.

Study details (i)

Question	Whether LAs to commission AN across the country?	Whether to deliver VR in-house LA or contracted-out?	Whether HDfDP is CE if funded (i) charity or H&SC?
User	Carers of people with dementia (& person with dementia).	People with severe sight loss who are having difficulty with activities of daily living.	People with severe hearing loss.
Intervention	LA funded. Admiral Nursing (via Dementia UK charity) specialist support via nurse with mental health training.	Mandatory service. VR LA funded & in-house provided. LA teams undertake wider sensory impairment work.	Use of hearing dogs for sound support & companionship. Hearing Dogs for Deaf People charity. Single provider
Comparator	Standard care, non-AN. Used ASCET to identify LAs not providing AN and matching.	LA funded service, contracted-out provision. Greater focus specifically on VR.	Standard care. Awaiting provision of a hearing dog.
Outcomes (economic)	Carer-quality of life, *self-efficacy, subjective wellbeing.*	QALYs in social care (SC) & health care (HC).	HC-QALYs.

Study details (ii)

	Admiral Nursing (AN)	Vision rehabilitation (VR)	Hearing dogs (HD)
Study design	Observational, feasibility study.	Observational. Prospective, comparative study.	Experimental study. Single centre RCT
Services	16 AN services.	9 in-house, 9 contracted-out (133 LAs provide either type).	Single provider throughout England.
Participant details	LA with AN: AN contacted carers if had contact details. LA with no-AN: relevant national/local vol. sector groups contacted. 346 total, AN=158, non-AN=188.	Initial contact via services, data collected via researchers. 230 total, 113 in-house, 117 contracted-out.	Initial contact via services, other time points data collected via researchers working closely with service. 165 total, HD=83, no-HD=82.
Data collection	Cross-sectional, clustered survey. Self completed, postal/online.	Telephone interviews users by researchers.	Self completed study electronic questionnaires in English & BSL.

Study details (iii)

	Admiral Nursing (AN)	Vision rehabilitation (VR)	Hearing dogs (HD)
Timeframe	Data collected at one point in time. Resource use & costs in last 4 weeks.	Data collected at 4 time points to 6 months. Resource use & costs in last 4 weeks.	Data collected at 2 time points, baseline & 6 months post HD user receiving HD.
Analytic methods	Control for differences in observed characteristics determining outcomes & costs AN v. no-AN (linear regression, propensity score matching) & unobserved characteristics (e.g., resilience, ability to care) using instrumental variables.	Panel data linear regression controlling for several user & LA characteristics. Collected user data through the study & LA data UK 2011 Census data. LAs may self select due to demand & supply-side characteristics.	Standard approaches. Adjusted for baseline differences. Different regressions undertaken & accounted for different needs categories.
Robustness	Different approaches to missing data, sub-groups, type of econometric models.		

NICE Economic Evaluation Methods guidance PMG10/20

Adapted from Table 5.1. from the NICE Methods Guide and Table 4 from NICE Social Care Guidance Manual

Conventional NICE framework

Aim: Maximise QALYs over lifetime of individual.

Costs: Subject to limited NHS & PSS resources & budget.

Opportunity cost: Health.

NICE: Social care focus

Aim: Maximise QALYs, ASCOT, ICECAP, CBA/CCA?

Costs: Care costs, how broad?

Opportunity cost: Social care. Additional costs don't necessarily just displace care in social care sector. Potentially on other sectors too, & not necessarily in same direction.

Economic evaluation (EE) framework

	Admiral Nursing (AN)	Vision rehabilitation (VR)	Hearing dogs (HD)
Type of EE	Costs & outcomes (CCA).	Cost-effectiveness analysis.	Cost-effectiveness analysis.
Provider	Local authority, Dementia UK.	LA in-house, external agency contracted-out.	HDfDP Charity.
Decision-making perspective	(i) Social care. (ii) Health care.	(i) Social care. (ii) Social care & health care.	Social care and health care if (i) Charity funds HD. (ii) SC & HC sector funds.
Comparators	AN service vs standard services non-AN.	Vision rehabilitation, in-house vs contracted-out.	Hearing dogs vs standard care (waiting for a hearing dog).
Outcomes	ASCOT-CarerQoL, self-efficacy management of dementia.	ASCOT-SCT4 re SC-QALYs, EQ-5D re HC-QALYs.	HC-QALYs. Also SC-QALYs via Stevens 'exchange rate' 2018.
Costs	Carer health & social care (& 3rd sector). Person with dementia social care.	Social care and health care.	Social care and health care.
Threshold	Not required.	£13k, £20k, £30k	£13k, £20k, £30k

Findings

Admiral Nursing

AN services may have a positive effect on outcomes carer QoL, self-efficacy etc. Little differences in costs re AN vs non-AN for carers, or people with dementia

Vision rehabilitation

Social care perspective: in-house VR services likely (90%) more CE.

Health & social care perspective: contracted-out services likely (70%) more CE.

Hearing dogs

HD funded by charity, HD improved outcomes and reduced costs. HD cost-effective.

HD funded by health and social care, HD not cost-effective.

Lessons (i)

Reliance by health & care economists on social policy researchers to

- Identify need and inform relevant design for evaluation.
- Collect data & engage service users consent & willingness to participate.
- Resource intensive & complex to identify & engage LA, services, users & carers.

RCTs are possible but relevance too of well-designed observational studies

- RCT applied to HDfDP successful. Single provider, highly engaged organisation, users interested to participate.
- Not always possible to use trials. Observational data can be informative.

Lessons (ii)

Use of EE framework & NICE guidance

- PMG10/20 inbuilt flexibility & choice on methods & analysis applied.

Service use & costs may increase as a result of service e.g., signposting

- Increase service use & costs may be a good thing. Worth longer term follow up?

To undertake this research & conduct a full EE requires.

- A CEA threshold for social care evaluation.
- An agreed outcome instrument relevant to the objective of social care (Care Act, 2014).
- Methods for dealing with cross sector impacts

For carers, useful to navigate what outcomes are important to them.

Questions

- What role does economics & economic evaluation have in informing social care decision making?
- How best to support and work with social care providers & funders to best undertake EE to inform resource allocation?
- How to best handle undertaking economic evaluation when multiple sectors are involved? Also undertaking EE from an integrated social care & health care perspective?
- How to agree on an outcome instrument to measure & best reflect the main objective of social care?

Thank you!

References

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