Rural health research: An Irish case study on the provision of out of hours general practitioner care

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Rural health research: Coming or going?

Photograph of Ernest Shackleton Elephant Island expedition

Objectives

1. Case study
   a. Outline impact of after hours care on Irish general practitioners
   b. Evaluate the impact of general practice out of hours co-operatives on general practitioners
2. Discuss
   a. 3 key questions
      a. Generalisability
      b. Practice and research: Which informs which?
      c. Capacity building

Implications for rural GP’s of out-of-hours work (Cuddy, 2000)

- Qualitative research
  - ‘studies things in their natural settings, attempting to make sense of, or interpret phenomena in terms of the meanings people bring to them’
  - Ten rural GP’s, representative of the western Irish seaboard, and their spouses, interviewed separately

Picture of rural general practice in 1951, Kremling, Wyoming published in Life by W Eugene Smith
A national census of all GP trainees 1990-96 (Parsons, 03)

- National register constructed
- Piloted questionnaire
- Second mailing to non-responders
- Addresses identified for 253 of 266 (95%)
- Replies from 209 (79% and 84%)

Irish Medical Journal 2003; 96: 10-12
Conclusion of research

- Provision of out of hours care by Irish general practitioners was not working and was unsustainable

Example of Irish co-op

- NoWDOC
  - 75 GP’s covering 120,000 rural patients
  - Department of Health funded
    - Set up costs Aus$ 1.4 million
    - Annual recurrent Aus$ 4.15 million
    - Payment to GP’s dependent on number of patients seen, but BIG issue!
  - Nationally
    - Now one in each Irish region
    - Most out of hours care now probably provided through a co-op
How does it work?

- Patient telephones 1850 (freecall) number
- Receptionist answers telephone, records information and passes caller to trained Triage Nurse
- Triage Nurse assesses case and either provides advice only, arranges for patient to be seen at a GP base or arranges for a house call
- If house call is needed GP on call is driven
- Details of the consultation are recorded and faxed to the patient’s GP the following day

Process of care by type of provider (Cragg, 1997 / Salisbury, 1997a / NoWDOC, 2002)

A comparative study on attitudes, mental health and job stress amongst GP’s participating, or not, in a rural out of hours co-operative.

- Study hypothesis
  - General practitioners participating in co-operatives will have more positive attitudes towards co-operatives, better mental health and less stress than general practitioners using traditional out of hours arrangements.
- Information obtained:
  - The general attitudes of practitioners towards out of hours work
  - Responses to the GHQ-12 (mental health)
  - Responses to the Stress Arousal Checklist (job stress)

Results

- 89 of 120 eligible practitioners responded (74%).
- Participating general practitioners in NoWDOC, in comparison to non-participating colleagues
  - were significantly younger (t = -2.38, p < 0.05)
  - were working fewer hours per day (t = -5, p < 0.01)
  - were in practices which had more partners (χ² = 5.3; p < 0.05).
- showed significantly greater rates of satisfaction with co-operatives in terms of quality of care, efficiency of service for the GP and Health Board, perceived patient satisfaction and the ability of co-operatives to improve working relationships between GP’s.

Postal survey of patients’ satisfaction with a family doctor out of hours cooperative (Glynn, 2004)

- “Shannondoc” cooperative
- South west with population of 85,000 and 38 family doctors

- Objective is to examine influence on patient satisfaction of:
  - health status
  - rurality status
- N = 531; 55% response rate
Methods

- Postal piloted questionnaire over one month
  Identified by call number
- Section A based on McKinley format
- Section B SF-12 health survey
- Section C patient demographics
  rurality status
  comparison to previous out of hours care

Overall Satisfaction

- Excellent 62%
- Good 26%
- Satisfactory 08%
- Poor 04%
- No difference in overall satisfaction levels according to
  - Sex
  - Rurality status
  - Previous out of hours care

Overall satisfaction Vs Health status

<table>
<thead>
<tr>
<th>Variable</th>
<th>Overall Patient Satisfaction</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P = Physical</td>
<td>Excellent/ Good</td>
<td>Satisfactory/ Poor</td>
</tr>
<tr>
<td>M = Mental</td>
<td>82% (162 / 192)</td>
<td>18% (30 / 192)</td>
</tr>
<tr>
<td>PCS &lt; mean PCS</td>
<td>91% (236 / 259)</td>
<td>9% (23 / 259)</td>
</tr>
<tr>
<td>PCS &gt; mean PCS</td>
<td>84% (148 / 176)</td>
<td>16% (28 / 176)</td>
</tr>
<tr>
<td>MCS &lt; mean MCS</td>
<td>90% (250 / 275)</td>
<td>10% (25 / 275)</td>
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      b. Practice and research: Which informs which?
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But ....so, what ...

- Generalisability

  "There is a tension between evaluation of complex interventions and generalisability of results. Randomised controlled trials alone cannot tell us why an intervention was or was not successful, or whether the theory and evidence informing the intervention were appropriate and needed revision."


Starfield (1998)
Primary care scores (out of 30)
Research and practice: Which wags which?

- The difference between 'involvement' and 'commitment' is like an eggs-and-ham breakfast: the chicken was 'involved' – the pig was 'committed'. Anonymous

Strategic R&D principles

- Successful expansion of primary care R&D requires a co-ordinated approach from practitioners, the Health authorities, Universities, professional bodies, and research funding agencies.
- Need to develop and maintain an academic workforce with sufficient infrastructural support to perform research, whilst continuing clinical practice.
- Any increase in primary care R&D activity requires parallel expansion of R&D capacity in the Universities.
- Expansion of R&D activity must be carefully managed balancing the short term need to produce results and long term sustainability.


Rural health research: Coming !!

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3 Take home messages

1. Co-operatives have positively transformed the out of hours Irish landscape
2. Consideration of generalisability needs to include settings, as well as, study design
3. Strategic approach to sustainable rural R&D capacity building vital.

35 References

• Cuddy N, Keane AM, Murphy AW. The provision of out of hours care by rural general practitioners: A qualitative study. British Journal of General Practice 2001; 51: 286-90.

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• AW Murphy, "Inappropriate" attenders to Accident and Emergency Departments I: Definition, incidence and reasons for attendance. Family Practice 1998 15: 23-32.
• AW Murphy, "Inappropriate" attenders to Accident and Emergency Departments II: Health service responses. Family Practice 1998 15: 33-37.
Other useful references


