The Inverse Care Law – research evidence

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‘The provision of good medical care tends to vary inversely with the need for it in the population served.’
The Exceptional Potential of General Practice
Making a Difference in Primary Care

Edited by
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Health inequalities in Scotland

The chart illustrates the relationship between deprivation decile and various health outcomes in Scotland. The x-axis represents deprivation decile, while the y-axis shows the percentage of population. The chart shows increasing trends for mortality <75, limiting long-term illness, and "not good" general health across higher deciles of deprivation.
People living in more deprived areas in Scotland develop multimorbidity 10-15 years before those living in the most affluent areas.
The Inverse Care Law: higher patient need but flat distribution of GP manpower in deprived areas
Percentage differences from least deprived decile for mortality, comorbidity, consultations and funding

"Over 2 million Scots in the most deprived 40% of the population received £10 less GP funding per head per annum than over 3 million Scots in the most affluent 60%"
GENERAL PRACTITIONERS AT THE DEEP END
The Inverse Care Law: Clinical Primary Care Encounters in Deprived and Affluent Areas of Scotland

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ABSTRACT

PURPOSE The inverse care law states that the availability of good medical care tends to vary inversely with the need for it in the population served, but there is little research on how the inverse care law actually operates.

METHODS A questionnaire study was carried out on 3,044 National Health Service (NHS) patients attending 26 general practitioners (GPs); 16 in poor areas (most deprived) and 10 in affluent areas (least deprived) in the west of Scotland. Data were collected on demographic and socioeconomic factors, health variables, and a range of factors relating to quality of care.
Consultations in deprived areas of Scotland: low patient enablement and high GP stress:

Patients in deprived areas (compared to patients in more affluent areas) had:

• More problems to discuss, which were more often complex (a mix of physical, psychological, and social);

Yet....

• Consultations were shorter
• Patients with complex problems were less enabled
• GPs were more stressed

Patient enablement never occurs with low empathy.....
General Practitioners' Empathy and Health Outcomes: A Prospective Observational Study of Consultations in Areas of High and Low Deprivation

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ABSTRACT

PURPOSE We set out to compare patients’ expectations, consultation characteristics, and outcomes in areas of high and low socioeconomic deprivation, and to examine whether the same factors predict better outcomes in both settings.

METHODS Six hundred fifty-nine patients attending 47 general practitioners in high- and low-deprivation areas of Scotland participated. We assessed patients’ expectations of involvement in decision making immediately before the consultation and patients’ perceptions of their general practitioners’ empathy immediately after. Consultations were video recorded and analyzed for verbal and non-verbal physician behaviors. Symptom severity and related well-being were measured at baseline and 1 month post-consultation. Consultation factors predicting better outcomes at 1 month were identified using backward selection methods.
Consultations in deprived areas of Scotland: less patient-centred and poorer outcomes:

*Patients in deprived areas (compared to patients in more affluent areas) had:

- Less desire for **shared decision making**;
- Perceived the GPs as **less empathic**;
- Consultations were **less patient-centred** (video analysis);
- Outcomes were **worse at 1 month** (symptoms, wellbeing)

Perceived GP Empathy predicted better outcomes in both deprived and affluent areas....
Multimorbidity and Socioeconomic Deprivation in Primary Care Consultations

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ABSTRACT

PURPOSE The influence of multimorbidity on the clinical encounter is poorly understood, especially in areas of high socioeconomic deprivation where burdensome multimorbidity is concentrated. The aim of the current study was to examine the effect of multimorbidity on general practice consultations, in areas of high and low deprivation.

METHODS We conducted secondary analyses of 659 video-recorded routine consultations involving 25 general practitioners (GPs) in deprived areas and 22 in affluent areas of Scotland. Patients rated the GP’s empathy using the Consultation and Relational Empathy (CARE) measure immediately after the consultation. Videos were analyzed using the Measure of Patient-Centered Communication. Multilevel, multi-regression analysis identified differences between the groups.

RESULTS In affluent areas, patients with multimorbidity received longer consultations than patients without multimorbidity (mean 12.8 minutes vs 9.3, respectively; \( P = .015 \)), but this was not so in deprived areas (mean 9.9 minutes vs 10.0 respectively; \( P = .774 \)). In affluent areas, patients with multimorbidity perceived their GP as more empathic (\( P = .009 \)) than patients without multimorbidity; this difference was not found in deprived areas (\( P = .344 \)). Video analysis showed that GPs in affluent areas were more attentive to the disease and illness experiences in patients with multimorbidity (\( P < .031 \)) compared with patients without multimorbidity. This was not the case in deprived areas (\( P = .727 \)).

CONCLUSIONS In deprived areas, the greater need of patients with multimorbidity is not reflected in the longer consultation length, higher GP patient centeredness, and higher perceived GP empathy found in affluent areas. Action is required to redress this mismatch of need and service provision for patients with multimorbidity if health inequalities are to be narrowed rather than widened by multimorbidity.
Consultations and Multimorbidity in Scotland in affluent versus deprived areas

Multimorbid patients in affluent areas (compared with non-multimorbid) had consultations which were:

• **Longer** by 40% (13 minutes versus 9 minutes; p=0.01)
• Perceived as **more empathic** (p=0.009)
• **More patient-centred** (video analysis; p= 0.03)

• NONE of these differences were found in deprived areas

Multiple morbidity and the inverse care law
GPs at the Deep End
Living well with multimorbidity: the Care Plus Study

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Elizabeth Fenwick
Bridie Fitzpatrick
Alex McConnachie
Rosaleen O’Brien
Graham Watt
Sally Wyke
NHS and Deep End General Practices

2009-2013
**CARE Plus: complex intervention development and testing 2009-2013**

| The extent of the problem | • 310 general practices - 1,754,133 patients  
|                          | • Qualitative interviews - 19 HPs and 14 patients  
|                          | • Economic analysis: Scottish Health Survey |
| Developing and optimising the intervention | • First phase – 6 Focus Groups  
|                                           | • Second phase – Scoping Study in 2 practices |
| A feasibility randomised controlled trial | • 8 general practices: GPs and practice nurses  
|                                        | • 152 patients  
|                                        | • Economic analysis: in-trial and modelling |
Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study

Karen Barnett, Stewart W Mercer, Michael Norbury, Graham Watt, Sally Wyke, Bruce Guthrie

The development and optimisation of a primary care-based whole system complex intervention (CARE Plus) for patients with multimorbidity living in areas of high socioeconomic deprivation

Stewart William Mercer, Rosaleen O’Brien, Bridie Fitzpatrick, Maria Higgins, Bruce Guthrie, Graham Watt and Sally Wyke

Double trouble: the impact of multimorbidity and deprivation on preference-weighted health related quality of life a cross sectional analysis of the Scottish Health Survey

Kenny D Lawson1,2, Stewart W Mercer2, Sally Wyke3, Eleanor Grieve4, Bruce Guthrie5, Graham CM Watt2 and Elisabeth AE Fenwick1

The CARE Plus study – a whole-system intervention to improve quality of life of primary care patients with multimorbidity in areas of high socioeconomic deprivation: exploratory cluster randomised controlled trial and cost-utility analysis

Stewart W. Mercer1, Bridie Fitzpatrick1, Bruce Guthrie2, Elisabeth Fenwick1, Eleanor Grieve1, Kenny Lawson3, Nicki Boyer1, Alex McConnell1, Suzanne M. Lloyd1, Rosaleen O’Brien5, Graham C. M. Watt1 and Sally Wyke8
The "clinical" narrative

The "human" narrative
Logic model CARE Plus

**Resource: more time, relational continuity and practitioner support**

| CARE consultations (inc goals and plans) | Stress reduction support |

**‘Better’ consultations**

| More enablement | Higher relational empathy |

**Better outcomes - Living Well (or at least better)**

| Wellbeing | Health-related quality of life |
CARE PLUS: a whole-system approach

Time, continuity, person-centredness and self-management support

- Longer consultation time with continuity
- Support meetings and structure for long person-centred consultations
- CD and written guide on mindfulness
  - Plus CBT guide
  - Community activities recommended
Would GPs and patients participate in a RCT?

General Practices

- Usual Care
  - Baseline: N = 76
  - 6 Months: N = 69 (91%)
  - 12 Months: N = 67 (88%)

- CARE Plus
  - Baseline: N = 76
  - 6 Months: N = 68 (89%)
  - 12 Months: N = 67 (88%)
Can the intervention be delivered?

Time spent in first index consultation

Satisfied with time spent in first index consultation

P<0.0001

P<0.0005
Are consultations ‘better’?

**care measure (% max score)**

- **care + consultation**: 45
- **usual consultation**: 25

**PEI (% ‘enabled’)**

- **care + consultation**: 30
- **usual consultation**: 10

*ns*
What impact did it have? EQ5-DL

Comparison of change from baseline care+ vs usual care p<0.01
Effect size = 0.35
Patients in the CARE Plus group had improvements in quality of life and wellbeing at 12 months.
CARE Plus was also very cost-effective

- Cost-effective:
  - Cost < £13,000 per QALY
  - NICE currently supports a cost of £20,000 per QALY

Conclusions

• The inverse care law operates by limiting what practitioners could otherwise do to help the health and wellbeing of patients whose lives are blighted by deprivation
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• The high level of unmet and complex health care needs in deprived areas, in the face of the inverse care law, results in high GP stress, less patient enablement, less patient-centred care and poorer outcomes. This disparity between affluent and poor is most apparent in patients with multimorbidity.
Conclusions

• The inverse care law operates by limiting what practitioners could otherwise do to help the health and wellbeing of patients whose lives are blighted by deprivation.

• The high level of unmet and complex health care needs in deprived areas, in the face of the inverse care law, results in high GP stress, less patient enablement, less patient-centred care and poorer outcomes. This disparity between affluent and poor is most apparent in patients with Multimorbidity.

• ‘Reversing’ the inverse care law experimentally – by giving more time, better continuity, and more empathic, patient centred care, leads to better outcomes, and is cost-effective.
Thank you! Have a great conference!