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Factors that Influence General Practitioner Diagnostic Decision-Making and a Comparison with Other Stakeholders

By

Kathleen Suzanne Noëlle Callaghan

A thesis submitted in partial fulfilment of the requirements for the degree of

Doctor of Philosophy

Department of Medicine

Faculty of Medical and Health Sciences

University of Auckland

2006

Abstract

Background

An analysis of Accident Compensation Corporation claims shows “inconsistent and inadequate diagnoses” by health care providers. Diagnostic performance is a result of two independent parameters, namely discrimination (accuracy) and decision (bias). Bias is related to the medical practitioner’s perception of the costs and benefits of making one choice over another. Bias may be statistical, sociological, political, biological or psychological in nature. This study investigated the factors that potentially bias diagnostic decision-making by general practitioners and the subjective value placed on these factors by different stakeholder groups in society.

Methods

Phase 1 of the study used focus groups of standard setters for general practitioners to identify factors that influenced diagnostic decision-making in general practice. These factors were evaluated for importance and desirability using standard Delphi methodology and Rasch analysis. Phase 2 of the study evaluated the importance and desirability of the factors identified in Phase 1 for influencing decision making as judged by significant health care stakeholder groups in New Zealand. Participant response was via questionnaire analysed by the Rasch Model.

Results

Thirty-nine factors were identified that potentially biased diagnostic decision-making in general practice. The measurements of, particularly, desirability have high

reproducibility across stakeholder groups and high positive loading for the first principal component consistent with construct validity. No stakeholder group identifies factors consistent with Bayes' theorem of diagnostic reasoning as being the only desirable influence on diagnosis. There is considerable categorical homogeneity between the stakeholder groups GP, GPACC, P, RACCSLT and RACCSST.

Conclusions

The findings of this and other studies challenge the current biomedical paradigm, indicating a less than Bayesian approach to medical decision-making. A social constructivist model, incorporating non-Bayesian factors into the definition of "illness" versus "disease", may be more representative of reality. A social constructivist model of medicine is incompatible with the current legislative and administrative framework within which the Accident Compensation Corporation and a number of other medical organisations operate.

Dedication

**To Hugh, Freyia (born 2002), Lachlan (born 2003),
and “Aunty” Lola**

With much love

Acknowledgements

The following individuals and groups are acknowledged for their assistance in the conduct of this work:

Professor John Irwin for his simply outstanding supervision and encouragement since the first day he introduced me to the mathematical ‘horror’ of detection theory.

Professor Des Gorman for his continued mentoring and support in my pursuit of integrating the disciplines of occupational medicine and human factors.

Greg Gamble for his statistical prowess.

Sara Metcalf for her encouragement, enthusiasm and computer skills.

The University of Auckland for awarding me The University of Auckland Senior Health Research Scholarship which provided welcomed financial support.

The Accident Compensation Corporation for their financial contribution and staff resource.

Staff of the Occupational Medicine Unit in particular Anne Culpan, Debbie Beaumont and Sam Leibert for their collegial good will, practical assistance and equanimity when listening to my enthusiastic outbursts or despondent moaning.

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List of Abbreviations

Abbreviation	Full Name
ACC	Accident Compensation Corporation
ACCMA	ACC Medical Advisors
ACCSMT	ACC Senior Management Team
ALS	Amyotrophic Lateral Sclerosis
CI	Confidence interval
CM	Case Manager
DIPOCCMED	Medical Practitioners who have graduated with a postgraduate Diploma of Occupational Medicine, University of Auckland
DRSL	Dispute Resolution Services Limited
Drs	Doctors
DSM	Diagnostic and Statistical Manual
DTC	Direct to consumer marketing
EBM	Evidence-Based Medicine
FHSAA	(UK) Family Health Services Appeal Authority
GP	General Practitioner
GPACC	General Practitioner -ACC
GPSS	General Practitioner – Standard Setters
GROP	Getting rid of Patients
HDC	Health and Disability Commissioner
HMO	Health Maintenance Organisation
IPA	Independent Practitioners Association

JAMA	Journal of the American Medical Association
JNC V	The V th (5 th) Joint National Committee
MAPWRGPI	Ministerial Advisory Panel on Work-related Gradual Process Disease or Infection
MOH	Ministry of Health
MP	Members Health Committee, NZ House of Representatives
NHCS	National Health Care System
NZ	New Zealand
OCCMED	Occupational Medicine Physicians
OR	Odds ratio
P	Patient
RACCSLT	Recipients of ACC Services – Long term
RACSST	Recipients of ACC Services – Short term
RACP	Royal Australasian College of Physicians
SDT	Signal Detection Theory
UK	United Kingdom