

**Effectiveness of a Patient Mediated
Intervention in Increasing the Use of
Cochrane Reviews of Evidence in Clinical
Practice: A Controlled Clinical Trial in COPD**

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ABSTRACT

Interventions are needed to improve health outcomes by increasing the practice of evidence based medicine (EBM). Patient mediated interventions have been little studied but hold promise: they target identified barriers to EBM and particular types of patient mediated intervention have shown success. Furthermore, consumers are now being given information about evidence but the effects of this on EBM have yet to be properly assessed.

The aim of this study was to show whether informing patients about research evidence leads to improved application of that evidence in their medical care. The study trialed a relatively low cost manual, developed using current best practice, which summarised Cochrane Reviews of evidence. The study focused on chronic obstructive pulmonary disease (COPD), a high-cost, high-burden chronic disease, showing a large gap between evidence and clinical practice.

The study comprised a controlled before-and-after trial and a process evaluation. The trial assessed the success of this manual in changing medical practice for three indicator treatments (influenza vaccination, bone density testing and pulmonary rehabilitation) and in changing patient quality of life, knowledge, communication with doctor, satisfaction with information and anxiety. Results were analysed by median split of socioeconomic disadvantage. At 3 months the manual was associated with lower anxiety for participants with lowest socioeconomic disadvantage. At 12 months the manual was associated with higher pulmonary rehabilitation enrolment for participants with greatest socioeconomic disadvantage. Other outcome measures showed no significant change. Limitations included loss of power from unexpectedly good baseline care and adjustments for baseline differences. The process evaluation showed that the manual was read more than a control pamphlet at both 3 and 12 months but a minority of manual recipients reported talking to their doctor about topics from the manual. Very little treatment change was reported. Patient attitudes

to evidence and doctor/patient communication norms appeared to be barriers for this patient group.

New protocols for the design of behavioural interventions provide a framework for overcoming these barriers in future interventions.

DECLARATION

This work contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person except where due reference has been made in the text.

I give consent to this copy of my thesis, when deposited in the University Library, being available for loan and photocopying.

Signed

Date.....

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I acknowledge the Australian Cochrane Airways Group for their far-sightedness in coming up with the idea of an evidence resource for patients and for obtaining funding. This group and many others in the Cochrane Collaboration provided ideas and encouragement for the resource and the research described in this thesis.

Many individuals contributed to the development of *Talking to your doctor about COPD*. I am grateful to them all, including those not named below. Health professionals and patients who contributed to the resource are acknowledged in an appendix, but I thank them here also. An early conversation with Dr Anne Johnson of Flinders University provided me with an invaluable orientation to current thinking on informing patients. Mr Danny Stevens of Drug & Alcohol Services South Australia kindly outlined advantages and disadvantages of a range of possible presentation formats for *Talking to your doctor about COPD*. Final editorial scanning and formatting were provided by In Writing. WestAir members and Pam Selim helped arrange for photographs which were taken by Alan Hoare and Basil Popowycz. Ms Beth Chandler very kindly donated a professionally produced diagram of the lungs and Dr Bronnie Veale gave advice on methods for piloting.

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LIST OF ABBREVIATIONS

COPD	Chronic obstructive pulmonary disease
CRQ	Chronic Respiratory Questionnaire
EBM	Evidence based medicine
GP	General practitioner
PIM	Patient information material
QoL	Quality of life

PUBLICATIONS AND PRESENTATIONS

To date, the following peer reviewed publications, conference presentations and awards have resulted from work described in this thesis.

JOURNAL ARTICLES

Harris M, Smith B, Veale A. (2005) Printed patient education interventions to facilitate shared management of chronic disease: a literature review. *Internal Medicine Journal*. **35** (12): 711-5.

Harris M, Smith B, Veale A. (2005) Engaging patients in evidence based medicine: development of a resource for people with chronic obstructive pulmonary disease. *Chronic Illness* **1** (4): 330-336.

Harris M, Smith B, Veale A. Providing patients with reviews of evidence about COPD treatments: a controlled trial of outcomes. *Chronic Respiratory Disease*. IN PRESS (accepted 07/10/2005 for publication).

CONFERENCE PRESENTATIONS

Harris M, Smith B, Veale A, Esterman A, Frith P, Selim P. Informed consumers as drivers of evidence based medicine: a trial. *X111 Cochrane Colloquium* October 2005 Melbourne. (Oral presentation)

Harris M, Wildgoose D, Veale A, Smith B. Patient mediated interventions to increase adoption of evidence: aids and barriers to an intervention in chronic obstructive pulmonary disease (COPD). *X111 Cochrane Colloquium* October 2005 Melbourne. (Oral presentation)

Harris M, Smith B, Veale A. Print interventions to facilitate shared management of chronic disease: a literature review. *Australasian Epidemiological Association Annual Conference*, October 2004 Adelaide. (Poster presentation)

Harris M. The importance of informal learning for health professionals. *Annual Conference of ANZAME: The Association for Health Professional Education* June 2004 Adelaide. (Oral presentation)

Harris M, Smith BJ, Veale A, Heard A. Dissemination of reviews to consumers: best-practice development of a Cochrane-based booklet on COPD. *Annual Scientific Meeting of the Thoracic Society of Australia and New Zealand* April 2003 Adelaide. (Oral presentation)

Harris M, Smith BJ, Heard A. COPD: Informed patients as best-practice drivers. *Public Health Association of Australia Annual Conference*. 2002 Adelaide. (Poster presentation)

AWARDS FOR MELANIE HARRIS

Winner of the Student/Health Professional in Training category award for the 2004 National Institute of Clinical Studies Cochrane Users Awards. (Details at: http://www.nicsl.com.au/projects_projects_detail.aspx?view=1&subpage=10&type=Normal)

Winner of a General category award for the 2004 National Institute of Clinical Studies Cochrane Users Awards. Details at: http://www.nicsl.com.au/projects_projects_detail.aspx?view=1&subpage=10&type=Normal)