

# Sex, pain and cranberries

## Ideas from the 2006 Registrar Research Workshop

**The Registrar Research Workshop has been a feature of Australian general practice training since 1994. Twenty-five general practice registrars attend the annual 3 day event, which aims to develop registrars' understanding of the research process. Presenters and facilitators are drawn from the academic general practitioner and primary health care research community. Presentations alternate with small group sessions, where groups of five registrars are guided through the process of developing a research question, identifying appropriate research methods, and addressing ethical and funding concerns, before preparing a presentation about their research proposal for their peers. Research questions are developed from unanswered questions that have arisen in registrars' clinical practice.**

This article describes the five research proposals developed at the 2006 workshop. They are examples of registrars' clinical questions captured and transformed into plans for research. We share them in the hope that they may inspire 'organised curiosity'<sup>1</sup> in others.

### Group 1: emergency contraception and adolescents

Several group members recalled meeting adolescent patients who were sexually active while being unaware of emergency contraception (EC). Is this ignorance widespread? The literature suggests an awareness level of EC of 28% in American teenagers.<sup>2</sup> Teenagers do commonly attend general practices; one study found that 93% of pregnant teenagers had attended a general practice during the year preceding their pregnancy, often for contraception advice.<sup>3</sup> We wondered if an intervention at the general practice level would help inform teenagers about EC, and thus decrease teenage pregnancies and terminations and their associated social, emotional, physical and financial costs.

We called it the 'ExCiTe' study: emergency contraception in teenagers – does a brief intervention increase knowledge and use of emergency contraception among females (aged 16–20 years) in a general practice population? We proposed a randomised clinical trial – involving 40–50 practices in one state – with block randomisation at the practice level, stratified by socioeconomic status and rurality. The intervention practices

would undergo youth friendly training and have EC posters in waiting rooms. The GPs would learn a short structured talk on the salient points of EC to share with enrolled patients, along with an EC pamphlet and family planning handout. The control practices would give enrolled patients the current family planning handout and perform a standard consultation. Follow up would involve a phone questionnaire at 12 months to determine enrolled patients' level of knowledge and use of EC, any unplanned pregnancies, and advice given to friends about EC. Possible hurdles for our study include the ethical concerns involved in ensuring informed consent when discussing sexuality with minors.

### Group 2: acupuncture in acute back pain

Group members agreed that musculoskeletal pain is a common and sometimes frustrating challenge. Musculoskeletal complaints are common in Australian general practice; responsible for 11.1% of consultations, with back complaints being most common.<sup>4</sup> While evidence exists regarding the effectiveness of acupuncture for chronic back pain, data for acute back pain is 'sparse and inconclusive'.<sup>5</sup> We wondered if acupuncture might modify the progression of acute back pain to chronic pain.

We proposed a pilot study to compare the use of acupuncture with 'sham' acupuncture in the management of acute lower back pain. We would recruit 50 patients aged 18–65 years with acute lower back pain secondary to an injury, excluding those with 'red flag' symptoms and pre-existing chronic pain. Using a randomised double blind design, the participants would be allocated into two groups. In addition to standard treatment, as recommended by their GP, the intervention group would receive acupuncture twice weekly for 4 weeks, while the control group would receive sham acupuncture. Acupuncture would be undertaken by formally accredited acupuncturists.

Treatments would be compared using a combination of patient questionnaires and physical assessment. The questionnaires would measure pain, function and quality of life. These measures would be taken at enrolment and then at 1, 3 and 6 months. We would look for statistically significant differences in these outcome measures between the two treatment groups at the different time points.

#### Brett D Montgomery

MBBS, DCH, FRACGP, is a general practitioner, Hospital General Practice, Fremantle, Western Australia. brett@multiline.com.au

#### Erin McMeniman

MBBS, BSc, is an advanced term general practice registrar, Brisbane, and an academic registrar, School of Medicine, Griffith University, Queensland.

#### Sara Kate Cameron

MBBS(Hons), BMedSci, is a hospital year general practice registrar, Port Augusta Hospital, South Australia.

#### Tristram Duncan

BMed, BN, is a hospital year general practice registrar, Orange Base Hospital, Orange, New South Wales.

#### Stuart Prosser

DCH, MBBS, DRANZCOG, is an advanced term general practice registrar, Narrogin, Western Australia.

#### Ray Moore

MBChB, FRACGP, FACRRM, DipObst, DRACOG, is a general practitioner and Divisional Medical Educator, Victoria.

### Group 3: cranberries and urinary tract infections in pregnancy

The clinical dilemma that sparked our group's interest was the case of a pregnant young mother who presented with frequency, dysuria, and a urinalysis suggesting a urinary tract infection (UTI).

The registrar involved remembered hearing about cranberries preventing UTIs, but was unsure of the evidence. A literature search revealed a Cochrane review that supported the efficacy of cranberry in preventing UTIs, while calling for further research.<sup>6</sup>

This case sparked the research question: 'In pregnant women who have had at least one previous UTI in pregnancy, does a cranberry extract tablet, compared with placebo, reduce the incidence of repeat UTIs?' We proposed a randomised, double blind placebo controlled trial based in the antenatal clinics of two tertiary maternity hospitals. At the routine 16 week visit, women who had had a previous UTI in pregnancy would be invited to participate, and if they consented, would be randomised into cranberry or placebo groups. Follow up every 2 months would assess the frequency of UTIs and tablet adherence. We estimate that, based on workload of the hospitals and the frequency of UTIs in pregnancy, the study would be able to enrol sufficient numbers of women for statistical power.

One unresolved concern about our study is of the safety of the cranberry product in pregnancy. This would need to be assured for our study to be ethically permissible.

### Group 4: dermatoscopes and registrars

Our group's curiosity was aroused not by a clinical encounter but by a policy decision: a regional training provider had decided to provide a dermatoscope and relevant reference material to each practice involved in training general practice registrars in their region.<sup>7</sup> We felt that evidence for this undertaking should be sought.

Our literature review found some evidence that dermatoscopy increases the accuracy of triage of suspicious skin lesions when performed by trained primary care physicians.<sup>8</sup> We did not find evidence about dermatoscopy in the hands of Australian GPs or registrars. We decided to ask: 'Does the use of a hand held nonoil dermatoscope improve the detection rate of skin cancers by basic term general practice registrars?'

We proposed a randomised controlled trial, recruiting 40 basic term registrars. They would be randomised into two groups: the control group would receive standard training in skin cancer, and the intervention group would receive this plus additional dermatoscopy training. Rather than measure clinical outcomes, we proposed testing registrars with pictures of skin lesions including skin cancers. We would compare the diagnostic accuracy of the two groups. Our proposal to use pictures rather than actual skin lesions will increase the feasibility of our study, but admittedly may limit its validity.

### Group 5: depression rating scales

The question developed by our team was: 'Does knowledge of a depression scale score improve medication compliance?' We had all seen examples of noncompliance with antidepressants; a study we consulted confirmed this, with over 70% of a community sample of depressed patients having ceased their antidepressant at 90 days follow up.<sup>9</sup> We were also aware of an emphasis on the use of depression rating scales in the Better Outcomes in Mental Health Care initiative. Some have suggested that patients' involvement in collection of illness measures may be empowering, and thus improve compliance.<sup>10</sup> Could we demonstrate this in general practice?

We proposed a randomised, controlled trial recruiting patients diagnosed with depression and starting on antidepressants in general practice. The intervention group would receive feedback of their score from a depression scale, whereas the control group would receive no feedback of their scores. The primary outcome would be compliance rates at 6 months.

With the permission of patients, GPs would ask a research assistant to call the patients to obtain consent. Participants would be individually randomised to groups, using off site random number tables, with stratification by practice. General practitioners would be blinded to treatment assignment. Education about depression, medications, and side effects would be provided by research assistants to all patients at organised contact times. Intervention group participants would also receive their depression scale scores and be able to discuss the meaning of this and their progress. We foresee that a pilot study would be needed to guide the design of a larger study.

### Conclusion

These proposals demonstrate that, with supportive mentoring, clinicians with limited research experience can develop feasible and clinically relevant research plans. Anecdotal feedback from the workshops demonstrates a high level of satisfaction with the teaching model used, with participants describing feeling more confident in their research skills and enthused to act on their clinical curiosity. A questionnaire study of past participants, examining the impact of the workshop on participants and their subsequent research involvement, is now under way. Applications from GP registrars for attendance at future workshops are most welcome ([www.agpt.com.au](http://www.agpt.com.au)).

Conflict of interest: at the time of writing this article, Brett Montgomery was employed by GPET, the organisation that runs the Registrar Research Workshop.

### References

1. Bridges-Webb C. Organised curiosity. *Med J Aust* 2001;175:613–6.
2. Delbanco SF, Parker ML, McIntosh M, Kannel S, Hoff T, Stewart FH. Missed opportunities: teenagers and emergency contraception. *Arch Pediatr Adolesc Med* 1998;152:727–33.
3. Churchill D, Allen J, Pringle M, et al. Consultation patterns and provision of contraception in general practice before teenage pregnancy: case control study. *BMJ* 2000;321:486–9.
4. Britt H, Miller GC, Knox S, et al. General practice activity in Australia 2004–05. *AIHW Cat. No. GEP 18*. Canberra: Australian Institute of Health and Welfare (General Practice Series No. 18), 2005.
5. Manheimer E, White A, Berman B, Forys K, Ernst E. Meta-analysis: acupuncture for low back pain. *Ann Intern Med* 2005;142:651–63.
6. Jepson RG, Mihaljevic L, Craig J. Cranberries for preventing urinary tract infections. *Cochrane Database of Systematic Reviews* 2004, Issue 2. Art. No.: CD001321.
7. Victorian Metropolitan Alliance. *VMA Newsletter Issue 12*, February–April 2006. Available at [www.vma.com.au/newsletter12.htm](http://www.vma.com.au/newsletter12.htm) [Accessed 27 July 2006].
8. Argenziano G, Puig S, Zalaudek I, et al. Dermoscopy improves accuracy of primary care physicians to triage lesions suggestive of skin cancer. *J Clin Oncol* 2006;24:1877–82.
9. Olsson M, Marcus SC, Tedeschi M, Wan GJ. Continuity of antidepressant treatment for adults with depression in the United States. *Am J Psychiatry* 2006;163:101–8.
10. Hickie IB, Andrews G, Davenport TA. Measuring outcomes in patients with depression or anxiety: an essential part of clinical practice. *Med J Aust* 2002;177:205–7.