

HEARNET News

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Inside this issue:

Edspace	1
Feature article	2
Quant & Qual columns	3
Tamworth Happenings & Member Research	4
News and Events	5

Introducing our 2007 RDPs.....

Dr Nerida Paterson

I was born in Newcastle and was part of the last cohort to attend Newcastle Girls High School.

I graduated from Newcastle University in 1984 and did my internship and residency at Prince of Wales/Prince Henry hospitals in Sydney. I then worked at Lingard for two years before working as a SRMO in O & G and Paediatrics at the Mater. I completed my DipRACOG in 1989.

I have been working as a sessional GP since 1990 in various practices around Newcastle. I have been tutoring at the University in problem based learning since 2000, initially with first year medical students, but more recently with first and second years.

My research interest encompasses the broad topic of "burnout" (i.e. emotional and physical exhaustion) in General Practitioners.

I am specifically interested in how the medical culture and attitudes of

fellow practitioners contribute to the phenomenon of burnout and how the culture might be changed to decrease the risk of burnout in practitioners.



Dr Craig Richards

I am currently a GP registrar, a teaching academic in Indigenous Health and a PhD student. For the past 3 years I have been working part-time in Aboriginal Medical Services, tutoring and mentoring the Indigenous medical students at Newcastle Uni and completing the core subjects of a Masters of Public Health.

For my PhD I am examining the disruption of normal gait caused by

modern running shoes. The intent of this examination will be not only to identify those features of running shoes which are detrimental, but also to investigate whether the improvement in biomechanical efficiency of gait which results from their removal is significant enough to result in an increase in physical activity levels.

For my Primary Health Care Fellowship I will be focussing on the evidence for GPs recommending running shoes to their patients and designing a study to evaluate the impact of this advice on the success of their exercise prescription.



Edspace

This is my first editorial for the HEARNet newsletter. I've worked Part-time at the Discipline of General Practice for approximately 2 years. My role is primarily, as a qualitative research support officer.

I would like to know whether you think that we can do things differently in the 2007 HEARNet newsletter. Does it meet your needs? – Or, is everything OK the way it is? Is there anything else that you would like to see included? Remember, it is YOUR newsletter and we, at the CAPRE Program, would value your contributions and would like for the members to become more actively involved in its production.

If you would like to contact me, contribute to, or discuss Newsletter issues please phone: 49 68 67 31 (Tuesday and Wednesday) or email:

terry.joyce@newcastle.edu.au

2006 was a productive and informative year for Primary Health Care research. There's little doubt that PHC research in 2007 will continue to make encouraging differences to practice.

Dr Terry Joyce

Feature Article

RDP Forum Nov 2006

The inaugural Research Development Forum was held at Shoal Bay Resort & Spa on Sat 25 November 2006. A welcome dinner at the "Sandy Foot Café" the evening before gave delegates the chance to get to know each other. The location and accommodation enabled those present to enjoy the scenery and soak up the relaxed atmosphere.

The Sat forum provided RDP participants with the opportunity to present their work in an informal and supportive environment. In addition, it was a great opportunity for the presenters to network with their peers and other more experienced PHC researchers.

Our plenary speaker, Ms Wendy Hermeston, shared her journey as an early career Aboriginal researcher. Her research interests relate to the trans-generational effect of past and ongoing child removal policies on health and emotional and social wellbeing.

Papers were presented by local RDP participants as well as RDP participants from Univer-

sity of NSW, University of Sydney, Broken Hill and Tamworth.

Graeme Horton, who is a GP and a RDP participant from the University of Newcastle, provided a thought provoking presentation of his research on health attitudes and the ecological footprint.

Karen Barrett is a Social worker and a RDP participant also at the University of Newcastle. Karen's paper provided valuable insight into the support needs of parents after the unexpected stillbirth of their baby.

Peter Traise from UDRH Tamworth presented his 'in progress' research project. Peter is examining the effect of continuing professional education on the radiographic interpretation skills of a cohort of rural radiographers.

Our thanks are extended to our Forum conveners, Prof. Dimity Pond and Prof. Peter Jones. Thanks also to Dr Parker Magin who, at short notice, provided a stimulating review of his research project which investigated the association of skin disease and psychological morbidity.

Forum Feedback.....

Good to meet you face to face.

I'm really pleased I made the effort to attend. It was well worth it to get that input from other RDP participants and the experienced researchers on our complex field. Great to have experience in presenting some of our results and to get feedback.

My feeling is that these forums work well - overall a very positive experience!

Many thanks.



From above clockwise:

Sue Kirby & Maureen Frances (Uni NSW), Graeme Horton (Ncle Uni) & Gaynor Heading (Broken Hill), Wendy Hermeston,

Quantitative Column

Significant tests for assessing hypotheses about population means

Used in situations where it is required to test whether the mean of a population takes a particular value or test the equality of the means of two populations.

A simple random sample of size n drawn from a

$N(\mu, \sigma)$ population

Sample mean \bar{x} has the distribution $N\left(\mu, \sigma/\sqrt{n}\right)$

When σ not known, we estimate it: s/\sqrt{n} ie. standard error of sample mean

The standardised sample mean $z = \frac{\bar{x} - \mu}{\sigma/\sqrt{n}}$ is the basis of z procedures for inference about μ when σ is known. This has the distribution $N(0,1)$

Substitute standard error for the standard deviation and the statistic has a t distribution

A single sample t-test or one sample t procedure

$$t = \frac{\bar{x} - \mu}{s/\sqrt{n}}$$

The one sample t statistic has t distribution with $n - 1$ degrees of freedom

In so-called *one-sample t-test*, the observed mean (from a single sample) is compared to an expected (or reference) mean of the population (e.g., some theoretical mean), and the variation in the population is estimated based on the variation in the observed sample.

The p -level reported with a t -test represents the probability of error involved in accepting the hypothesis the sample mean equals the population mean. Technically speaking, this is the probability of error associated with rejecting the hypothesis when, in fact, the hypothesis is true.

Independent samples t-test

Independent samples are available from each population which are $N(\mu_1, \sigma_1)$ and $N(\mu_2, \sigma_2)$

\bar{x}_1, \bar{x}_2 are the means of samples of size n_1, n_2 taken from each population

Test statistic is:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{s \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} \text{ with } n_1 + n_2 - 2 \text{ degrees of freedom}$$

s^2 is an estimate of the assumed common variance

$$s^2 = \frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}$$

We want to compare the two population means by testing the hypothesis of no difference between the

population means $H_0 : \mu_1 = \mu_2$,

Qualitative Column

FOCUS GROUP

What is it?

- A qualitative research tool
- A form of group interviewing (collective activity)

Interactive – responses build on to other participants' views etc.

How many participants?

- Normally homogeneous groups
- Generally 6-10 may be as few as 4 or, as many as 12

- Usually more than one focus group with diverse groups addressing the same topic

Generally need 4-6 groups.

Aide memoire (focus group schedule)

Generally, a semi-structured interview with the participants' responses guiding the questioning approach.

Focus group data collection:

Relies on *interactions* between group members rather than between researcher and group members

Benefits e.g.

- A more normal setting than an interview because, as in day-to-day life, the participants are 'influenced' by other group members

- Can obtain information from illiterate communities

Less able to control participants' response than individual interviews

Potential limitations e.g.

- Researcher bias and manipulation

Strong personalities may influence other participants' responses.

Analysis

In addition to the interview data, group dynamics are recorded and analysed.

Information on this topic obtained from:

Litoselliti, L. (2003). *Using focus groups in research*. New York, Continuum

Use p -values from the t distribution to obtain significance

A t -test can be done where the samples are dependent; that is, when there is only one sample that has been tested twice (repeated measures) or when there are two samples that have been matched or "paired". For this equation, the differences between all pairs must be calculated. The pairs are both one person's pretest and posttest scores or one person in a group matched to another person in another group (see table). The average (\bar{X}_D) and standard deviation (s_D) of those differences are used in the equation.

Tamworth PHCRED

The beginning of 2007 brought a number of changes to the UDRH PHCRED team.

Linda Greer has joined the team and is providing support and administration assistance to the PHCRED academic team. Linda's background includes nursing, 20 years in office administration, and experience as a Research Assistant at the School of Nursing, Deakin University, Melbourne.

Last year Linda returned to Tamworth after a 29 year absence and was employed by UNSW, Centre for General Practice Integration Studies, as a Research Officer collecting data for a project in general practices. The UDRH provided desk space for the duration of the project and so we came to know Linda and eventually to employ her three days per week.

Linda will work with the PHCRED Research Coordinator to streamline reporting and financial processes. One of Linda's key roles will be to take over collection and recording of the UDRH publication output.

Karin Fisher has joined the PHCRED team working one day



University Department of Rural Health
Northern New South Wales
Faculty of Health

per week to provide specialist assistance and training for UDRH researchers in the use of SPSS and NVIVO software.

Karen brings more than 20 years experience in public health specifically health protection in relation to sexually transmissible diseases and blood borne diseases. Karin is currently completing her PhD.



The state PHCRED Retreat was not all hard work! Jenny May and Rod Cooper enjoying the view from the Mt Tomaree at Port Stevens.

Spotlight on Research

Dr Jenny May's GP Academic position with the UDRH is partly funded by PHCRED. It encompasses support of research and evaluation activities in primary health care particularly involving the Divisions of General Practice, Regional GP Training providers and Continuing Professional Development delivery. Her research interests include new models of general practice in rural and remote areas, and primary health care integration. She is currently working on an APHCRI funded project on aged care skill mix changes. She works at Peel Health Care, a Division auspiced general practice in Tamworth.



Jenny is the Rural Doctors Association of Australia (RDAA) representative and Deputy Chair of the National Rural Health Alliance (NHRA). In this capacity she has been involved in numerous committees and working parties around rural health issues. Jenny has lived and worked in the New Eng-

land area since 1984 with a five year sojourn in remote Western Australia's Pilbra and a year's work in a remote Indigenous community in British Columbia, Canada in 2004.

UPDATE

Trish Thornberry's PHC fellowship in the UDRH finished in February. Trish has made good progress on her PhD research. She was successful in obtaining one of three NSW Nurses and Midwives Board scholarships of \$17,500 allowing her to continue her PhD momentum.

PUBLICATIONS

Brown L, Capra S, Williams L. Profile of the Australian dietetic workforce: 1991-2005. *Nutrition & Dietetics*, 63:166-178, 2006.

Cooper R, Brown L. Client education issues for rural and remote health practitioners. Book chapter in *Client Education: A practical guide for clinical therapists*. K. McKenna, L. Tooth (Eds), pp 327-342. UNSW Press, 2006.

Hayes P, May J, Martin TP. Dementia: An epidemic that has arrived. *Australian Pharmacist*, 25 (10):796-798, 2006.

News and Events

Newsletter of the Health Evaluation and Research NETWORK

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2007 Journal Club Meetings

Venue: Meeting Room, Discipline of General Practice,
Newbolds Building, Gavey St, Mayfield

Time: 9:30-10:30am

Meeting Dates: 5 Apr, 3 May, 7 Jun, 5 Jul, 2 Aug,
6 Sept, 4 Oct, 1 Nov, 6 Dec.

For your information.....

Local Events

Research seminar series

Purpose: to introduce basic concepts in critical appraisal and epidemiology.

To be held prior to journal club from **9-9:30am**

5th April: Study designs

3rd May: Critical Appraisal-significance
and p-values

7th June: Critical Appraisal– measure of effect

5th July: External validity– applicability of
study results to your patients.

13th Annual Mental Health Conference

18 May 2007

Noahs on the Beach, Newcastle

More information email:

kate.simpson@hnehealth.nsw.gov.au

HEARNet Tips

1. Always establish **EARLY** in your relationship with your Supervisor or Collaborators, as to who will be the primary author for publications.

2. **ALWAYS**, regularly, back up your work (at least 2 copies).

National Events

2007 National GP & PHC Research Conference

23-25 May 2007

Sydney Convention Centre, Darling Harbour

More details visit: <http://www.phcris.org.au/conference>

Early-bird registration closes: 30 Mar 07.

2nd Rural Health Research Colloquium

16-17 May 2007

UDRH, Tamworth

More details visit:

<http://rhrc.mtci.com.au/>

Early bird registration closes: 6 Apr 07.

8th International Mental Health Conference

17-19 August 2007

Surfers Paradise, Queensland

More details visit:

<http://gcimh.com.au/conference/>

50th RACGP Annual Scientific Convention

4-7 October 2007

Sydney Convention and Exhibition Centre

More details visit:

<http://www.racgp.org.au/asc2007>

Call for abstracts closes: 30 Apr 07.

4th NSW PHC Research & Evaluation Conference

29-30 November 2007.

Venue TBA, Sydney

More details visit:

<http://www.nswphc.unsw.edu.au/events.htm>