

# NMAHP Research Unit

## NEWSLETTER

March 2006

Volume 17



### From the Director

When our last newsletter was circulated, the unit was undergoing a number of staff changes. In contrast, we are currently experiencing a period of welcome stability. All three programmes of research now have their Programme Leaders and Research Fellows in post – Marian Brady, a Speech and Language Therapist leads the Stroke Programme with Ellen Townend, a Health Psychologist as her Research Fellow; Suzanne Hagen leads the Urogenital Programme, with Lesley Sinclair as her Research Fellow, both of whom are applied statisticians with a track record of health care research; and Helen Cheyne, a Midwife leads the NMAHP Decision making programme and has recently been joined by Eddie Duncan as our first Clinical Research Fellow. Eddie is an Occupational Therapist, working in Mental Health. He will develop a strand of decision making research activity within the mental health field and will continue to practice in a relevant area of Occupational Therapy. As such he could be regarded as one possible role model for the clinical academic of the future.

These posts are core funded by the Chief Scientist Office of the SEHD. As in all the CSO research units, other researcher posts are funded through external grant income. Currently these externally funded staff include: Linda Armstrong, Speech and Language Therapist; Carol Barnett, Midwife; Sylvia Dickson, Clinical Trial Researcher; Brian McGlynn, Urology-oncology Nurse Specialist; Catriona MacDonald, Health Service Researcher; Veronica Smith, Psychiatric Nurse; Diane Stark, Physiotherapist; Craig Stewart, Secretary; Maggie Styles, Midwife; Rohini Terry, Health Psychologist. We also have two paramedics from the Scottish Ambulance Service seconded to us, in an innovative move by the SAS to develop their research profile. Keith and David describe their experiences overleaf. The influx of 'in house' clinicians is very welcome; adding to our up-to-date clinical knowledge and expertise; and opening us up to new clinical collaborations. We also have a much healthier gender balance than in the past, putting paid to an overabundance of 'girly' chat round the coffee table.

The unit funds an annual conference. In the past we have mounted conferences for other NMAHP researchers; we have used our annual conference to disseminate our own research results; and we have hosted a number of small invited workshops focussing on a specific area of clinical research activity (see Suzanne Hagen's report on her recent urogenital workshop, overleaf). Many of you will have attended our conferences and workshops and we would welcome feedback and ideas for future events. Last

year we co-hosted the Catching the Wave conference with the Scottish Executive Health Department and NHS Education for Scotland. I hope many of you managed to get along to the event which was about 'Developing Active Researchers in Clinical Practice'. The organisation of the conference attempted to get away from the usual static format. It provided a large number of stations where organisations could tout their wares and 'experience booths' where delegates could learn about how to get started in research and get involved in the many research opportunities that are now available for NMAHP clinicians. Our station was very busy. It focussed on our links with NMAHP clinicians, with staff such as Diane Stark and Brian McGlynn talking about the experiences they had working with the unit and how that had changed their approach to clinical practice.

Every project the unit undertakes involves Nursing, Midwifery or Allied Health Professionals, so we are always keen to find new clinical collaborators. While some of you may want to develop a full time research career, many will be more interested in being involved in research as a part of your clinical practice. But you wonder how to find the time to do both! This is where we can help. If your research interests coincide with ours – Stroke, Urogenital disorders, Decision making, then, maybe we could work together. In the context of research grant application, COREC forms, research governance, data analysis and publication, many hands do make for lighter work. So, please contact us, we might be able to give you your first step on the ladder to research success.

*Kate Niven*

### Getting a copy of the newsletter

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More information about NMAHP Research Unit, including the research programme can be found on the web pages at <http://www.nmahpru.gcal.ac.uk>

## Stroke Programme

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### Completed research studies:

#### *The psychosocial impact of dysarthria on individuals and their carers*

##### Researchers

Sylvia Dickson<sup>1</sup>, Marian Brady<sup>1</sup>, Rose Barbour<sup>2</sup>, Alex Clark<sup>3</sup>, Gillian Paton<sup>4</sup>

<sup>1</sup>NMAHP Research Unit, <sup>2</sup>School of Nursing and Midwifery, University of Dundee, <sup>3</sup>Faculty of Nursing, University of Alberta, <sup>4</sup>Department of Speech and Language Therapy, Royal Alexandra Hospital, Paisley

##### Project outline/methodology

Dysarthria - slurred, poorly articulated speech caused by neurological conditions - is experienced by approximately a fifth of individuals in the early stages of stroke, yet very little is understood about the impact of this condition.

In-depth, semi-structured, qualitative interviews with 24 post-stroke dysarthric individuals and 3 carers were conducted to examine their experiences and perceptions of the impact of dysarthria on their lives. Systematic coding and data retrieval was assisted by the N-Vivo computer package.

##### Key results

Irrespective of the severity of dysarthria (i.e. mild, moderate or severe), age, gender, social economic circumstances or perceived recovery, patients experienced significant and ongoing disruption to psychosocial wellbeing and self-image, restrictions in performing everyday tasks (particularly communication on the telephone and with strangers) and felt stigmatised in a variety of social situations.

##### Conclusions

Dysarthria has considerable emotional / social implications for patients, and for the few carers interviewed, and is associated with frequent stigmatisation.

The reluctance of other carers to participate may testify to the challenges of caring for someone with dysarthria and the guilt associated with raising their own concerns.

##### What does this study add to the field?

This is the first study conducted to explore the psychosocial impact of dysarthria after stroke on patients and carers.

##### Implications for practice

Speech and Language Therapy support should include interventions not only to improve speech, but also to address and promote psychosocial wellbeing and reduce the likelihood of feelings of stigmatisation.

Carers should be approached to participate in interventions.

##### Where to next?

More large-scale research is needed to identify the prevalence and degree of speech-related psychosocial and

quality of life disruption to patients with dysarthria and their carers.

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### Recent publications:

Banks, P and Lawrence, M (2006) The Disability Discrimination Act, a necessary, but not sufficient safeguard for people with progressive conditions in the workplace? The experiences of younger people with Parkinson's disease. *Disability and Rehabilitation*, 28(1):13-24

Banks, P and Lawrence, M (2005) Transparent or opaque? Disabled people in Scotland describe their experience of applying for Disability Living Allowance. *Journal of Social Work*, 5(3):299-317

### New staff:

Veronica Smith

## Urogenital Disorders Programme

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### Completed research studies:

#### *A Feasibility Study for a Randomised Controlled Trial of a Pelvic Floor Muscle Training Intervention for Pelvic Organ Prolapse*

##### Researchers

Suzanne Hagen<sup>1</sup>, Diane Stark<sup>3</sup>, Cathryn Glazener<sup>2</sup>, Ian Ramsay<sup>3</sup>, Lesley Sinclair<sup>1</sup>, Philippa Dall<sup>1</sup>, Lynne Swan<sup>2</sup>

<sup>1</sup>NMAHP Research Unit, <sup>2</sup>Health Services Research Unit, <sup>3</sup>Southern General Hospital

##### Aim

To explore the feasibility of a multi-centre randomised controlled trial for a non-surgical treatment (pelvic floor muscle training (PFMT)) for women with pelvic organ prolapse.

##### Project outline/methodology

A small randomised controlled trial, funded by the Chief Scientist Office, was set up and run at two sites in order to assess feasibility of the main trial and inform its design, sample size and economic evaluation methods.

Women allocated to the treatment group were taught by a physiotherapist to practice pelvic floor exercises (contracting their pelvic floor muscles) several times a day. The comparison group received only a lifestyle advice sheet. The outcomes measured at baseline, 20 and 26 weeks included prolapse severity, prolapse and prolapse-related symptoms and general health.

##### Key results

The trial successfully randomised and followed up 47 women. Questionnaire response rates and follow-up clinic attendance rates were high.

Women in the intervention group had significant reductions in their prolapse severity and were significantly more likely to say their prolapse had improved since the

start of the study. No significant differences in prolapse symptoms between the groups were detected.

Important issues regarding recruitment, prolapse measurement, and study processes and documentation were identified which will be addressed in the main trial.

### **Conclusions**

The feasibility study achieved its aims and it was concluded that a multi-centre trial is feasible. It is recommended that the trial should randomise 500 women in order to be able to detect important differences in outcome, and that a cost-effectiveness analysis, using changes in days with symptoms is adopted as the method of economic evaluation.

### **What does this study add to the field?**

Very little evidence currently exists regarding the effectiveness of physiotherapy in treating women with prolapse. This feasibility study will lead to a trial which will provide robust information to greatly increase the evidence-base.

### **Implications for practice or policy**

We know that many physiotherapists in the UK already offer this type of treatment for women with prolapse and therefore it is important that a full trial follows on from this study to give them clear practice guidelines in this area. This feasibility study has provided the groundwork for such a trial, generating a large amount of information and experience which will ensure a high quality multi-centre trial is possible.

### **Where to next?**

The feasibility study was graded by the funders as excellent and the project team are now seeking funding for a multi-centre trial based on its findings.

### **Further details from:**

Suzanne Hagen, Programme Leader  
NMAHP Research Unit

## ***Urogenital Disorders Programme secondees***

Two clinical secondees have been working with the programme since the last newsletter.

Brian McGlynn is based at Ayr Hospital. He qualified in 1987 as a registered general nurse, and has worked in acute urology for 20 years. For the last seven years Brian has been a specialist urology-oncology nurse. At the time of his appointment this was the first post of this kind in Scotland. Brian has set up a new development in Ayrshire where the prostate cancer patient's journey is nurse-managed from diagnosis to treatment and through follow-up. This service is autonomous but links very closely with Consultants and other medical staff. Brian is the Lead Nurse for the West of Scotland Managed Clinical Network for prostate cancer. At NMAHP Research Unit Brian has been undertaking a literature review of the evidence for pre-operative intervention for incontinence prior to radical prostatectomy. He has also carried out an audit of practice in his unit with regards to this.

Diane Stark qualified in 1985 with a BSc in Physiotherapy. Her interest in Women's health started in 1990 when she took up the post of a Senior II Physiotherapist in Obstetrics and Gynaecology. She completed the ACPWH (Association of Chartered Physiotherapists in Obstetrics and Gynaecology) Course (now known as ACPWH) in 1991 and went on to develop the Urogynaecology Physiotherapy service in the Southern General Hospital in Glasgow. An interest in research started in 1994 when she worked on a study with a consultant in urogynaecology. In her secondment she has been working in the prolapse strand of the programme, developing a funding proposal, analysing data from a feasibility study, and preparing an ethics submission. Below Diane describes her research journey!

*"I currently work as a Superintendent Physiotherapist in Obstetrics and Gynaecology at the Southern General Hospital in Glasgow. My first taste of research was in 1994 when I worked with medical and nursing colleagues to look at the effectiveness of conservative intervention on urinary incontinence. At this stage my only role was to lead the physiotherapy intervention.*

*In 1998 I worked with NRIS (now NMAHP Research Unit) on a small project looking at the effectiveness of pelvic floor exercise teaching. I had a bigger role to play in planning and writing up this project.*

*I realised after this small amount of research activity that trying to produce research and work full time was difficult and the ideal world was not only collaboration with a research unit like NMAHP but also a time commitment from clinical work.*

*Recently, I have worked with NMAHP Research Unit on a two-year project funded by the CSO. My learning in this past two years has been huge! Everything that has to happen to ensure a project runs smoothly and professionally (grant application, co-ordination of the study, data collection, team meetings, ethics, budget control, staff involvement, motivation, etc, etc) was a new experience for me. I naively underestimated all aspects of the study. The learning experience for me is the equivalent of being a newly qualified clinician and I have been like a sponge for the past two years! The staff at the unit have been patient, keen to share their knowledge and have never made me feel silly about asking the most basic questions.*

*To other clinicians wishing to embark on research I would say, discuss your ideas with colleagues and, as early as possible, liaise with experienced NMAHP researchers who will help with the reality of turning your ideas into a research project."*

## **EXPERTS MEET TO DISCUSS "A PRIVATE AFFAIR"**

Experts in the often-ignored area of urogenital health met on 3<sup>rd</sup> February in Stirling to discuss current research evidence, identify research gaps and share innovative

practice. The one-day workshop covered a wide range of topics often swept under the carpet including incontinence, pelvic organ prolapse, and male and female sexual dysfunction.

The event was organised and hosted by staff from the urogenital disorders programme at NMAHP RU and brought together a small group of clinicians and researchers from all over the UK and North America. The day, which was fast-paced and dynamic, stimulated much discussion and generated many exciting ideas for future research in the treatment and management of problems of the urogenital system.

NMAHP RU staff now look forward to forming new collaborations with clinicians and researchers to successfully develop some of these research ideas.

### **Grants Awarded**

Longitudinal study of pelvic floor dysfunction and childbirth

C Glazener, N Dean, C MacArthur, P Herbison, S Hagen, C Bain, P Toozs-Hobson, A Grant, D Wilson

Funder: Wellbeing of Women

**Award: £109,579**

Feasibility, inter-rater and intra-rater reliability of physiotherapists measuring prolapse using the pelvic organ prolapse quantification (POP-Q) system

D Stark, P Dall, S Hagen, A Mohamed

Funder: Physiotherapy Research Foundation

**Award: £12,800**

## **Decision Making Programme**

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### **Completed Research Studies:**

#### ***Midwives' diagnostic judgement and management decisions in making the diagnosis of labour***

##### **Researchers**

Helen Cheyne<sup>1</sup>, Dawn Dowding<sup>2</sup>, Vanora Hundley<sup>3</sup>

<sup>1</sup>NMAHP Research Unit. <sup>2</sup>Department of Health Sciences, Hull York Medical School. <sup>3</sup>College of Nursing, Houston Baptist University, 7502 Fondren Road, Houston, Texas 77074

##### **Project outline/method**

The diagnosis of active labour is often problematic and there is evidence that if a woman is admitted to the labour ward when in the latent phase of labour, she is more likely to have some form of medical intervention. The aim of this study was to examine midwives' perceptions about the way in which they diagnose labour. This was a qualitative study, employing a focus group methodology. The sample was midwives working in a maternity unit in the North of England. Midwives were asked to discuss their experience of admission of women in labour. The groups were tape recorded, transcribed verbatim and analysed using latent content analysis.

### **Key results**

Overall 13 midwives participated in one of two focus groups. The midwives described information cues used in decision making which could be separated into two categories, those arising from the woman and those from the institution. The themes relating to the women were; *Physical signs, Distress and coping, Woman's expectations and Social factors*, those, which related to the institution were; *Midwifery care, Organisational factors and Justifying actions*. It appeared that the midwives' decision making process could be divided into two distinct stages; the diagnostic judgement and the management decision. The diagnostic judgement was made, based on the physical signs of labour; the management decision would then be made by considering the diagnostic judgement as well as cues such as: how the woman was coping, her expectations and those of her family as well as the requirements of the institution in which care is delivered.

### **Conclusions**

The admission of women who are not in active labour is a considerable problem in UK maternity units. It is tempting to conclude that midwives make frequent errors in diagnosis of labour; however, this oversimplifies the problem. The findings of this study suggest that midwives may experience more difficulty with the management decision than with the initial diagnosis.

### **Implications for practice/policy**

It may be that the number of inappropriate admissions to labour wards could be reduced by supporting midwives to negotiate the complex management hurdles which accompany diagnosis of labour.

### **Where to next?**

This study contributed to the development of The Early Labour Study in Scotland, a cluster randomised trial of a decision aid for midwives for diagnosis of labour which is currently on going. Further research is required to develop our understanding of onset of labour from the perspective of the woman.

### **References**

Cheyne H, Dowding D, Hundley V. Midwives' diagnostic judgement and management decisions in making the diagnosis of labour. *Journal of Advance Nursing* (In Press)

#### ***Assessing states of awareness in recollections of the quality and intensity of acute pain in an experimental setting***

##### **Researchers**

Rohini Terry<sup>1</sup>, Catherine Niven<sup>1</sup>, Eric Brodie<sup>2</sup>

<sup>1</sup>NMAHP Research Unit, University of Stirling.  
<sup>2</sup>Department of Psychology, Glasgow Caledonian University

##### **Project outline/methodology**

The aim of this study was to investigate whether recollections of acute pain are based upon clearly, consciously remembering the pain, as opposed to simply knowing that a prior experience was painful. In addition,

the extent to which retrospective reports rely on the memories of prior *descriptions* of the pain, requires clarification.

Ninety eight participants used the Cold Pressor (CP) test, (whereby participants place their hand and forearm in very cold water of 5°C), the McGill Pain Questionnaire (MPQ; Melzack, 1975) to describe the quality of the pain experienced, and a VAS to report the intensity of the pain. Two weeks later, participants were asked to recall the pain, again using the VAS to report intensity and the MPQ to provide qualitative descriptions. Employing the remember/know paradigm, (proposed by Tulving, 1985) participants were then asked to decide whether they remembered the sensations of the pain, and/or remembered the MPQ descriptor they had used to report the pain, or just knew that the descriptor chosen was appropriate.

### Key results

Correlation analysis indicated that recollections of the pain intensity appeared to be excellent and memory for the defining characteristics of pain (eg., the temporal, spatial aspects of the pain) also appeared to be reliable. In addition, most of the MPQ descriptors (73%) were chosen because the participants felt that they clearly, consciously remembered the sensations of the cold. Less often, participants remembered that they had selected a MPQ descriptor whilst in pain (20%), or just knew that the descriptor chosen was appropriate (23%).

### Conclusions

Our data indicates that it is the pain sensations which were remembered, rather than the descriptors used to express the CP experience. It is concluded that the use of the remember/know distinction in assessing memory for pain could provide considerable advances in our understanding of factors which differentially affect memory for pain.

### What does this study add to the field?

This study suggests that retrospective ratings of pain may be more reliable than previously assumed, although it may be more appropriate to assess pain quality at a 'type of pain' level rather than, for example, at the more fine-grained level of individual MPQ descriptors. By and large, the sensations of short episodes of acute pain are reported to be remembered, but it is important to investigate factors and conditions which influence recall accuracy.

### Implications for practice or policy

The application of the remember/know paradigm provides a more direct method investigating the phenomenological experiences of recalling acute pain.

### Where to next?

An investigation of memory for clinical pain, using the remember/know methodology, is required, together with an exploration of factors which may influence or mediate memory for pain.

### Further details from

Rohini Terry, NMAHP Research Unit, RG Bomont Building, University of Stirling, Stirling, FK9 4LA

### References:

Melzack, R. (1975). The McGill Pain Questionnaire: major properties and scoring methods. *Pain* 1, 277-299.

Tulving, E. (1985). Memory and consciousness. *Canadian Psychologist* 26, 1-12.

### *An examination of how nurses use the Waterlow scale for judgement and decision making in continuing care*

#### Researchers

Susan Baxter<sup>1</sup>, Dawn Dowding<sup>2</sup>, Jo Booth<sup>3</sup>, Catherine Niven<sup>1</sup>

<sup>1</sup>NMAHP Research Unit, University of Stirling, <sup>2</sup>Hull York Medical School, <sup>3</sup>Glasgow Caledonian University.

#### Aim

1 To identify the number and type of assessment tools which are routinely used in both NHS and independent continuing care settings

2 To investigate how nurses use these assessment tools in continuing care

3 To investigate what effect assessment tools have on decision making about patient care

#### Project outline/methodology

*Part One* A postal survey of continuing care units for older people was conducted across Scotland. 609 units were sent a questionnaire, 121 units responded of which 50 actually completed the questionnaire fully. The results from the survey highlighted that pressure ulcer risk assessment was the most commonly assessed area of health in all 50 units, and that the Waterlow scale was the most commonly used tool. This result provided the basis to the remainder of the study, thus focusing on how continuing care nurses use the Waterlow scale to assess pressure ulcer risk and plan care for an older person.

*Part Two* Case study design was used in the second part of this study. From a total of 4 units (2 hospital wards and 2 nursing homes), 8 nurses were observed carrying out 16 pressure ulcer risk assessments (2 assessments each), after which they were interviewed immediately about the assessment they had performed. Both sets of data were analysed using content analysis.

*Part Three* Using an actor and hypothetical set of nursing notes, a clinical simulation was constructed. 12 nurses were asked to assess pressure ulcer risk and plan care as they normally would do whilst 'thinking aloud' (verbalising their thoughts). Protocol analysis was used to analyse the verbal data, revealing the cognitive processes and information that they had used to inform their judgements and decisions about patient care.

#### Key Results

All of the units who completed the survey assessed pressure ulcer risk, with 60% using the Waterlow scale to do so. The survey also highlighted that in 50% of units

surveyed, assessment tools are used by both qualified and unqualified members of nursing staff.

The results from part 2 of the study found that written information was the most commonly used source of information to inform the nurse's judgements and decisions. The interviews indicated that nurses felt that the process of pressure ulcer risk assessment was broader than just looking at a patient's skin. Often nurses assessed other areas of health simultaneously such as pain, mood and mobility. Such areas were considered by the nurses as relevant to the assessment of an older person's pressure ulcer risk.

Think aloud data collected from the final study highlighted that there were no differences in how pressure ulcer risks assessment and care planning was carried out according to the type of units in which nurses worked. However, there were differences in how the Waterlow scale was used according to the experience of the assessing nurse. More experienced nurses were less likely to use the information contained in the tool as the basis of either their assessment or plan of care compared with less experienced nurses.

### **Conclusions**

From the results of this study it seems that how an assessment tool is used by a nurse when making an assessment judgement or care decision is related to their experience rather than the care context in which they work.

### **What this study adds to the field**

One of the assumptions underlying the use of nursing assessment tools is that less experienced nurses can collect information and arrive at a judgement or decision that mimics those made by more experienced nurses. The results of this study indicate that how nurses use assessment tools tends to vary according to their experience, thus questioning this assumption.

### **Where to next?**

The results of this study will be disseminated in the appropriate journals. However further research is needed into how assessment tools are used by nurses in clinical practice, and their influence on patient care.

### **Further details from**

Ms Susan Baxter, NMAHP Research Unit, Glasgow Caledonian University, Cowcaddens Road, Glasgow, G4 0BA

## **Paramedics head back to school**

The following is an extract taken from Response, the Scottish Ambulance Service newsletter, volume 14, no.4, Winter 2005.

The Scottish Ambulance Service is top of the class when it comes to research and development, and is sending two of its paramedics back to school. Keith Colver and David Fitzpatrick are now settling into their new roles at Stirling University with honorary positions as research

development officers. The service has given them a two-year secondment to develop research skills and help arrange funding for future research applications.

The first of its kind in Scotland, and one of only a few in the UK, the project aims to keep the Service better informed in times of change, focusing on new roles and services. Research and Development Co-ordinator Bill Mason said: 'This is a tremendous opportunity for us to work closely with nurses and other allied health professionals to develop robust, evidence-based future treatments and roles for ambulance staff. The skill of the NMAHP Research Unit, and this partnership approach to developing a Scottish Health Service fit for the future, is welcomed.'

The two men were chosen via a joint selection process between the Service and the University and are both looking forward to the challenges that lie ahead. Bill explained: 'We needed to find two individuals with the necessary breadth and depth of recent field experience, along with the ability to cope with the mental and physical challenges involved. Keith and David were chosen from a shortlist of over 20 candidates and it's a huge change for them. The University environment is very different from their normal shifts and operational duties'.

Keith joined the Service in 1993 – working in a variety of roles including paramedic, supervisor and member of the Special Operations Team. He left his most recent role as an extended care practitioner with the Lothian Unscheduled Care Service and the Western General Hospital's Minor Injuries Unit to take up his new secondment.

David joined the Service in 1996, and served in stations across Lanarkshire, David has manned a paramedic rapid response unit for the past three years. And after gaining his Diploma in Immediate Medical Care from the Royal College of Surgeons, is an advanced life support tutor with the UK Resuscitation Council and British Association of Immediate Care Schemes (BASICS). David has also been studying to become an advanced pathfinder paramedic, giving him a range of additional skills to administer new drugs and treatments.

Based at the University, Keith and David are combining work with study – and will travel throughout Scotland to carry out case studies and other research. Their findings will be published and used to develop Service expertise, and for the wider NHS to gain a better understanding of roles within the Service.

## **STOP PRESS!!!**

Since this newsletter was composed, Susan Baxter and Rohini Terry have both been awarded PhD's. Congratulations!