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“ It is of paramount importance to identify effective and less costly ways of dealing with child anxiety. ”

## Defeating children's fears and worries: an economic perspective

Mara Violato

**Anxiety disorders are common in childhood. They have a significant adverse impact on the socio-emotional functioning of children and commonly persist into adulthood. Cognitive Behavioural Therapy (CBT) is effective and recommended as the treatment of choice, but it is resource intensive, costly and not widely available. It is therefore of paramount importance to identify effective and less costly ways of dealing with child anxiety.**

HERC's portfolio of research in the area of child health disorders includes NIHR and MRC funded economic evaluations alongside randomised controlled trials in collaboration with Professor Peter Cooper and Dr Cathy Creswell, University of Reading, and Dr Emma McIntosh, University of Glasgow.

Two of these studies are currently evaluating different scenarios within a 'stepped care' approach to treatment delivery, which involves offering simple low intensity CBT treatment to anxious children, with non-responders referred to specialist care.

The OVERCOMING trial compares guided (parent-delivered) CBT plus varying levels of therapist contact with a waiting-list control group, and aims to clarify the level of guidance required for this approach to be effective and cost-effective. The T-CAP trial aims

to evaluate the efficacy and cost-effectiveness of guided CBT self-help for child anxiety compared with standard care.

It is also important to recognise that this low intensity approach does not work for some children, and to identify what interventions might be needed in these contexts. A third study, the Mach trial, focusses on children with anxiety disorders whose parents also have anxiety disorders (this group often respond poorly to standard treatments). This trial aims to determine the extent to which treatments of parental anxiety and the parent-child relationship enhance standard CBT for children who have anxiety disorders, and to evaluate the cost-effectiveness of those treatments.

This research represents an exciting opportunity for HERC to complement evidence on clinical efficacy with economic evidence on the cost-effectiveness of alternative ways to manage child anxiety disorders. This is especially timely given the recent commitment of the NHS to extend the Improved Access to Psychological Treatments programme to children and young people.

For more information: **HERC**





**Dramatic rise in number of medical mistakes involving NHS patients**

**NHS MEDICATION ERRORS DOUBLE IN TWO YEARS**

## Health care: when things go wrong...

**Project team:** Alastair Gray, Paul Fenn (University of Nottingham), Neil Rickman (University of Surrey)

How often does medical care go wrong and cause harm? When it does, how serious are the consequences? And has the health service become safer or less safe over the last decade? These are some of the questions being tackled in a study funded by the Nuffield Foundation, now in its closing stages.

Frequent news stories about poor quality of care, and rising compensation payments made by the NHS Litigation Authority, would suggest that things are getting worse, but whether this is the case is difficult to establish. We tackled this research question by conducting a large population survey to find out whether respondents had suffered some illness, injury or impairment that in their opinion was caused by their medical treatment or care, and if so to find out the consequences for their health and work, and what action they took, if any. Our sample size was almost 20,000, and the questionnaire was designed to be comparable to a similar survey conducted in 2001.

“ ... the NHS has become significantly safer when measured by self-reported harm resulting from medical care. ”

The data are being analysed at present, but preliminary results suggest that the proportion of people reporting harm has declined over time. About half of these events were felt to have caused major or permanent harm, but most people wanted an apology and explanation above anything else, while the proportion pursuing legal claims for compensation was small (about one in ten), and had not increased.

Detailed results will be available by the end of 2013, but our initial conclusion is that the NHS has become significantly safer when measured by self-reported harm resulting from medical care.

For more information: **HERC**

## HERC hosts costing workshop

**Organisers:** Sarah Wordsworth, Helen Dakin, Alastair Gray



HERC hosted a workshop exploring methods for costing healthcare interventions. Sixty people attended the workshop funded by the MRC Network of Hubs for Trials Methodology Research (HTMR), held at St Catherine's College in Oxford on 10th October 2013. The workshop was oversubscribed, with 30 people on the waiting list, highlighting the widespread interest in costing methods among health economists.

Highlights included the two guest lectures: Paula Monteith from the Health and Social Care Information Centre spoke on the where, how and what of Healthcare Resource Groups (HRGs), while Neil Galbraith from the Oxford University Hospitals NHS trust described how local hospital trusts make annual reference cost returns.

The workshop included seven abstract-led presentations and five posters on empirical costing work, which covered a variety of issues, including which resources should be included in economic evaluation, alternative methods for measuring quantities of resources such as length of stay, different sources of unit cost data and alternative models for analysing costs. The workshop was a collaboration between researchers at HERC, the University of Bristol and the University of Bangor, and we hope to publish a paper on the issues raised during the day in due course.

For more information: **HERC**



# Our Summer Placements in Oxford

Two students from York visited us to research their MSc dissertations during July-September 2013

## Ethnic differences in the relationship between childhood asthma and family income in the United Kingdom

**Project team:** Tomos Robinson, Mara Violato



Tomos writes: I had the fantastic opportunity to carry out my dissertation placement at HERC under the supervision of Dr Mara Violato. My project used the first four waves of the Millennium Cohort Study to investigate whether the association between family income and levels of childhood asthma held across the main ethnic groups in the UK.

Research previously undertaken by Mara and collaborators has shown family income to have a weak direct effect on levels of childhood asthma, whilst epidemiological literature indicates that there are wide scale differences in the prevalence of asthma across ethnicities, as well as several of the major risk factors. This study used both cross sectional and panel data analysis to regress measures of childhood asthma against two different measures of family income and a range of different controlling factors for these different ethnic groups.

The results showed that while an association between family income and childhood asthma levels is present in the (majority) White population, the apparent association in the grouped Black subset seems to be driven by a broader range of socioeconomic factors, whilst there seems to be no statistically significant relationship in the South East Asian population. Further research is needed in this under examined area, possibly in conjunction with hospital admissions data rather than just population studies.

I found HERC to be an excellent place to work, with everybody being friendly and welcoming. My supervisor, Mara, was attentive and encouraging throughout the summer, despite having numerous other projects to manage! I'll definitely be using the skills I picked up at HERC when I begin a PhD in the area of child health and development inequalities at the University of Newcastle upon Tyne.

## Quality of life and eye disease: Health impact and mapping analysis

**Project team:** Pdraig Dixon, Helen Dakin, Sarah Wordsworth



Pdraig writes: I undertook a placement at HERC under the supervision of Sarah Wordsworth and Helen Dakin. The project analysed quality of life data from the IVAN trial, a recently-completed RCT evaluating treatments for neovascular age-related macular degeneration (nAMD). nAMD

is a progressive chronic disease of the central part of the retina, and is a leading cause of blindness internationally. Economic evaluations in this area and for eye disease more generally require accurate estimates of the relationship between health state preference values and vision.

The first objective of the dissertation was therefore to provide independent empirical estimates of the relationship between utility and vision, contributing new evidence to ongoing debates in the literature concerning the quantitative impact of eye disease on EQ-5D and HUI3 values. The second objective of the dissertation was to develop a mapping algorithm to predict EQ-5D values from the MacDQoL, a validated condition-specific instrument measuring macular degeneration-specific quality of life (QoL).

Econometric analysis utilised a variety of model specifications and estimators (such as OLS, Tobit and quantile regression) to model the relationship between health-related (HR) QoL and vision, and to identify a mapping algorithm. Models were assessed on the basis of their predictive performance, and a variety of diagnostic tools were deployed to assess the extent to which different specifications managed to reflect health status data.

The new estimates of the impact of changes in vision on HRQoL demonstrate modest quantitative impacts (in line with recent literature), and the development of the first algorithm to map between MacDQoL and EQ-5D will facilitate cost-effectiveness analysis in this area.

I was fully integrated into the HERC team during the placement, and gave a seminar presentation of emerging findings, the feedback from which complemented the excellent supervision I received. Future work is planned, including two publications from the dissertation.

For more information: **HERC**

## Spotlight on ANEES AA PARI



I joined HERC in 2010 as part of an academic placement. I am a specialist registrar and NIHR Academic Clinical Fellow in Public Health at the University of Oxford. In addition to my public health residency, I am currently undertaking a DPhil in health economics. My DPhil thesis focuses on the health economic aspects of Bipolar disorder (BD) that are important for priority setting and decision making. While addressing the challenges involved in health economics of mental health, I intend to explore the burden of BD, quantify the cost and quality of life (QoL) of patients with BD, and undertake economic evaluations of a novel mood-monitoring system, and pharmacotherapy, in the management of BD.

Specifically, my work will comprehensively look into the direct and indirect costs incurred by patients with BD, while comparing the costs of different subtypes and exploring the factors that predict the costs of BD.

Furthermore, the assessment of QoL using the EQ-5D questionnaire in severe mental health disorders such as BD may not always correlate well with symptom changes. For example, patients in a manic state can score highly on a quality of life scale, leading to disproportionate values that do not reflect their true clinical condition. To address the on-going scepticism associated with the use of the EQ-5D questionnaire in severe mental health disorders, I aim to assess the appropriateness of using the EQ-5D to value health-related QoL in patients with BD.

Given my medical background, I found the first few years in health economics to be a steep learning curve. However, the working culture of HERC is always welcoming and provides a positive learning environment where young researchers like me are encouraged to follow their ambitions whilst acquiring new skills.

## Staff News – Welcome to...



### Richéal Burns

joined HERC in October 2013 and will be providing health economic support on a range of trials to the Surgical Intervention Trials Unit (SITU) part of the Nuffield Department of Surgical Sciences. She is currently finalising her PhD thesis on 'Evaluating the Economic Impacts of Screening

for Prostate Cancer' at the National University of Ireland, Galway. Richéal's research interests include decision modelling, inequality in outcomes and resource utilisation and health-related quality of life.



### Ines Rombach

is a new DPhil student who joined HERC in October 2013, supervised by Oliver Rivero-Arias and Alastair Gray. She is working on a research project looking at the handling and reporting of missing data in patient reported outcomes measures with a focus on missing data in randomised clinical trials.



### Ingrid Slade

is on the Public Health Training scheme and joined HERC in October. Her doctoral work was on childhood cancer genetics and she is working with Sarah Wordsworth on the Mainstreaming Cancer Genetics Programme, which aims to make genetic testing part of routine cancer patient care.

## Congratulations to:

**Professor Winnie Yip** has moved from NDPH to the Blavatnik School of Government, in the Social Science Division of Oxford University, where she is continuing to lead research on large-scale health system interventions and evaluations in China. Her team from HERC has moved with her. We say au revoir to **Wei Han**, **Reem Hafez**, **Eduardo Fe**, and **Y-Ling Chi**, as well as to Winnie herself, and look forward to continuing to hear from them. Reem and Y-Ling continue as DPhil students in NDPH though located at BSG.

**Oliver Rivero-Arias** is moving next door to the National Perinatal Epidemiology Unit (NPEU), still within NDPH. There he will lead the health economics group. Oliver has spent eleven years in HERC and will be staying in close touch, continuing with teaching, running our Journal Club, and collaborating on research methods.

**Tim Powell-Jackson** has returned to full time work at the London School of Hygiene and Tropical Medicine.

## Recruitment:

We'll be looking for researchers at senior and junior grades in the near future. If you wish to be notified when we advertise, email [herc@dph.ox.ac.uk](mailto:herc@dph.ox.ac.uk).

The Nuffield Department of Population Health is inviting applications to study for a DPhil in Population Health, please see: <http://www.herc.ox.ac.uk/Vacancies/dphil>

## HERC Seminars

Convenor: Jacqueline Murphy

From August 2013 to October 2013 the Seminar series temporarily halted over the holiday period. The new season began in October 2013, when we welcomed Dr Markus Haacker, Honorary Lecturer at the London School of Hygiene and Tropical Medicine since 2008, who presented his findings on the *Effectiveness and cost-effectiveness of male circumcision in South Africa - an incremental analysis by age at circumcision*.

To be added to our mailing list for future seminars, email us at [herc@dph.ox.ac.uk](mailto:herc@dph.ox.ac.uk)

## Nuffield Department of Population Health

HERC is now part of the Nuffield Department of Population Health (NDPH), Oxford University. This new and greatly enlarged Department within the Medical Sciences Division brings together several groups of researchers in different disciplines, who conduct internationally renowned research into medical treatments and the factors affecting population health worldwide. NDPH comprises the Clinical Trial Service Unit, the Cancer Epidemiology Unit, the George Institute for Global Health, the National Perinatal Epidemiology Unit, and all the research groups that previously came within the Department of Public Health. NDPH is led by Professor Sir Rory Collins.

For HERC, this does not bring immediate change. Our portfolio of research will continue to include economic evaluation and its methodology, work on the economics of population health, and research on the measurement and valuation of resources and of health outcomes. In the longer term however we look forward to increasing collaborative research using the 'big data' resources now concentrated in our new department.

## Recently Funded

**TACTIC: Targeted Action for Curing Trauma Induced Coagulopathy.** A comparative effectiveness study of trauma haemorrhage management. Funded by EU FP7 programme. 5 year study from December 2013. Economic analysis led by Helen Campbell.

**Cost-effectiveness of SDOCT imaging to identify macular pathology in patients diagnosed with diabetic maculopathy by a digital photographic retinal screening programme.** Study led by Gloucestershire PCT, funded by the UK National Screening Committee. Economic analysis led by Ramon Luengo-Fernandez.

## Presentations by members of HERC

**Chronic Lymphocytic Leukaemia Support Association, members meeting**

Oxford, October 2013

**James Buchanan**

*Health economics, genomics and CLL*

**EuroQol Plenary meeting**

Montreal, September 2013

Juan M. Ramos-Goñi, Jose Luis Pinto-Prades, Juan M. Cabasés, **Oliver Rivero-Arias**

*Spanish EQ-5D-5L Valuation project: dealing with inconsistencies of C-TTO responses*

**NHS Blood and Transplant R&D Conference**

September 2013

**Helen Campbell**

*Health Economics and Blood Transfusion*

**Human Development and Capability Association**

Managua, Nicaragua, September 2013

**Judit Simon**

*How do severe mental illness and community coercion affect people's capabilities?*

## Recent Publications

For a complete list of HERC-authored publications to date and in press, visit our website.

**Dakin H.** (2013). Review of studies mapping from quality of life or clinical measures to EQ-5D: an online database. *Health and Quality of Life Outcomes* 2013, 11:151.

Ramos-Goñi J, **Rivero-Arias O**, and **Dakin H.** (2013). Response mapping to translate health outcomes into the generic health-related quality of life instrument EQ-5D: Introducing the `mrs2eq` and `oks2eq` commands. *Stata Journal*, 13(3):474-491.

**Rivero-Arias O**, Jowett S, and de Weerd M. (2013). Basic Principles of Economic Evaluation of Occupational Health and Safety Interventions. In: *Current Topics in Occupational Epidemiology*, ed. by Katherine Venables. Oxford University Press, Oxford, chap. 18, pp. 237-251. (ISBN: 978-0-19-968390-1).

Beard D, Price A, Cook J, Fitzpatrick R, Carr A, Campbell M, Doll H, **Campbell H**, Arden N, Cooper C, Davies L, Murray D. Total or Partial Knee Arthroplasty Trial - TOPKAT: study protocol for a randomised controlled trial. *Trials* 2013;14(1):292 [Epub ahead of print].

Palmer AJ, and The Mount Hood 5 Modeling Group; of which **Alastair Gray** and **José Leal** are part (2013). Computer modeling of diabetes and its complications: a report on the Fifth Mount Hood challenge meeting. *Value Health*, 16(4):670-85.

**Luengo-Fernandez R**, **Gray A**, Bull L, Welch S, Cuthbertson F, and Rothwell P for the Oxford Vascular Study (2013): Quality of life after TIA and stroke: 10-year results of the Oxford Vascular Study. - *Neurology*, doi: 10.1212/WNL.0b013e3182a9f45f. [Epub ahead of print].

**Luengo-Fernandez R**, **Leal J**, **Gray AM**, Sullivan R. The economic burden of cancer across the European Union: a population-based cost analysis. *Lancet Oncol* 2013; doi:10.1016/S1470-2045(13)70442-X.

**STOP PRESS** The full HERC database of mapping studies is now available at:

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