THE UNIVERSITY of York

THE JOURNAL OF THE DEPARTMENT OF HEALTH SCIENCES

EQUIPOISE

The Face of Health Sciences

CONTENTS

EQUIPOISE

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EDITORIAL

Welcome to the first edition of the journal of the Department of Health Sciences at the University of York. Some of you will be thinking, "why a journal?" Still more of you may be thinking, why "Equipoise?" We decided to produce a journal because to our minds journals offer something newsletters and brochures rarely do: genuinely interesting content. We were determined to avoid the kinds of departmental newsletters that simply (and often not so simply) tell you about their research. Instead, we wanted to present you with a twice yearly collection of prose that will challenge your views, raise questions and foster awareness of the sorts of issues we like to tackle in the Department of Health Sciences. You can of course find out all about our research, teaching and training via our website *www.york.ac.uk/healthsciences*, but Equipoise is intended to stimulate your interest first and foremost.

Our journal's title "Equipoise" may be a new term for some readers. The term refers to the collective uncertainty that surrounds many important questions in healthcare: what treatments are most effective? How well does a diagnostic test perform? How should we be preparing future clinicians? How best to organise this service to increase quality and efficiency? In order for research to meet the ethical demands imposed by the principle of equipoise, research must be designed to "disturb" this uncertainty and be convincing enough to resolve the dispute among clinicians and policy makers.[1] In publishing Equipoise, we want to publish articles that disturb some of your certainties as well as our collective uncertainties.

Each issue will have a theme; in this issue, "The Face of Health Sciences", we celebrate the human backdrop to our research, development and education. We deal with topics such as human flaws in decision making and judgement, the role of computers in mental healthcare, training nurses for compassion and how simple plans, clear communication of goals and good quality data can improve cardiac care. We hope that you like the format and content and if we have stimulated your desire to learn, question or train, that you will feel able to get in touch.

Carl Thompson and Kate Pickett

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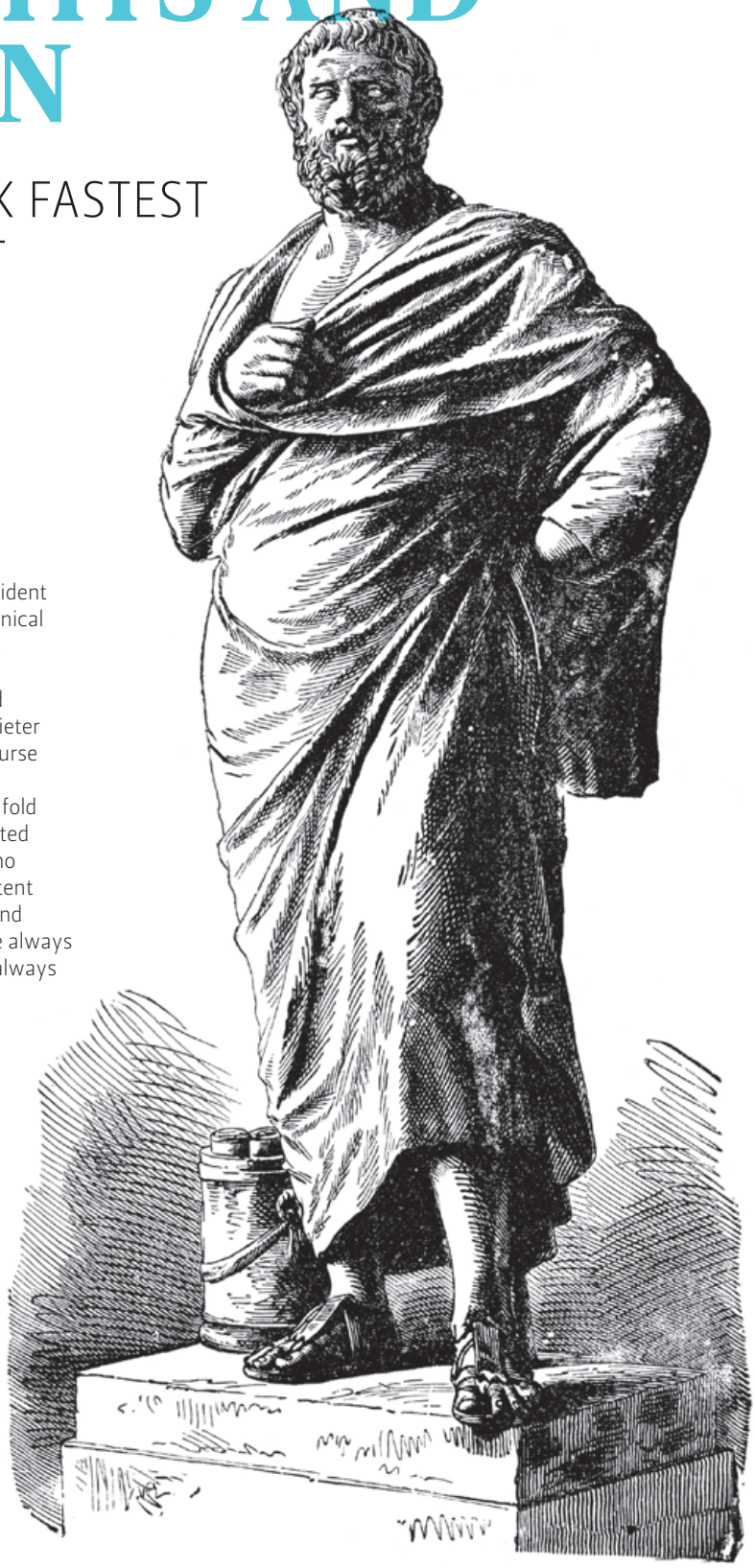
BARBECUE TONGS, GREEK PLAYWRIGHTS AND SPIDERMAN

ON WHY THOSE WHO THINK FASTEST DON'T ALWAYS THINK BEST



10 years ago my wife broke her wrist. Having fashioned a splint from a set of barbecue tongs and a pair of speedos (we were at the beach), we found ourselves in a local Accident and Emergency Room watching the Consultant use his clinical judgement to move and discharge patients. In 10 minutes he transformed a chaotic A&E into a haven of calm and order. One of the nurses on the unit was a former student of mine and so I asked her, "is he any good at this?". "Well, it's definitely quieter afterwards, and not many of them come back – although of course they could all be dead."

Sophocles (497–406 BC) highlighted the "madness" of manifold decisions thrust upon the decision maker by virtue of their exalted position. Of one thing though Sophocles was certain, "those who think fast think dangerously". I have long been stuck by the extent to which the NHS celebrates the rapid. Events happen quickly and decision makers are feted for their abilities to think quickly; I've always harboured a nagging doubt that this speed and haste may not always be a good thing.

Sophocles had a point though. Modern health systems are risky places, where 1 in 10 patients experiencing a mishap or unwanted event as a result of contact with healthcare – risks up there with bungy jumping. Many of these are preventable, because at their heart, are errors of judgement or decision making on the part of clinicians. Much of the science behind making healthcare safer, suggests that medical errors are "downstream" symptoms of malaise "upstream" in the system. Even in a complex system like a health service though, there are things the individual clinical decision maker can do to improve the quality of their clinical judgements.

One thing that doesn't seem to improve the quality of people's reasoning is classroom-taught 'facts', developed in isolation from the context to which the facts will be applied. Two kinds of clinical knowedge exist: background and foreground knowledge. We acquire background knowledge as undergraduates: how does the lung work? What is gaseous exchange? Foreground

knowledge comes into play when a doctor is trying to decide what to do for a 17 year old who, for the first time in their life, is struggling to breathe after playing with their nephew and his rabbits. Most clinicians know that once qualified it is foreground knowledge that is required most often and yet is also the most difficult to acquire. We tend to assume the most experienced clinicians possess most foreground knowledge. This might not be the case, Choudry and colleagues (2005) found that 'doing the right thing' declined in line with experience in over half (52%) of the 62 studies that they examined.

Perhaps we could train doctors and nurses, more innovatively? Sally Stapley and I (2011) recently found that in 24 studies of innovative education with nurses, published over twenty years, innovative education works sometimes, in some circumstances but with unpredictable effects. Similar findings exist in medicine *http://bit.ly/HR2m9U*.

Healthcare decisions themselves may hold the key to why educational 'magic bullets' fail. Decisions in healthcare are inherently uncertain and the uncertainty cannot be eradicated. Kenneth Hammond (1996) is a social scientist who has examined judgements from the perspective of lawyers, weather forecasters and social policy makers. Hammond's argument is simple: if we know how our decisions are structured, the time available and the nature of our decisions, we can adapt our reasoning to suit (and make better judgements). He tested his ideas with highway engineers. The engineers were given a series of tasks designed to appeal to their intuitive reasoning skills (film strip depictions of the aesthetics of a road), their analytical reasoning (formulae of road capacity), and a 'middle ground' in which both intuition and analysis come into play (bar graphs of highway safety). Hammond (Hammond et al. 1987) found that those engineers who correctly matched their reasoning to the demands of the tasks made better choices than those who were less adaptable. Hammond's definition of 'better' was the same as that used by most people delivering or receiving healthcare: more accurate or optimal. So, like Sophocles, Ken Hammond has shown us that those decision makers who pride themselves on thinking quickly and intuitively, will only make consistently good decisions when their work merits speedy judgement and choices.

Of one thing though Sophocles was certain, "those who think fast think dangerously". I have long been struck by the extent to which the NHS celebrates the rapid

We don't always get this crucial balance right. Huiqin Yang – now a successful post doctoral researcher, but formerly a PhD student in Health Sciences at York – recently looked at how well experienced and novice nurses "calibrated" (Yang & Thompson, 2010) their confidence against their judgements of the risks of (serious) adverse events in hospital patients. Huiqin found the experienced nurses were significantly more confident than students, but no more accurate. Using a similar approach, Len Dalgleish (who sadly passed away last year) and I found that all of the benefits of clinical experience amassed by nurses in four countries were wiped out when those nurses were put under time pressure. Why? Well, when time pressures changed, nurses reasoning did not (Thompson et al., 2009).

It may seem a bit of a leap from Sophocles to Spiderman. But it was Peter Parker's Uncle Ben who used the phrase "With power comes great responsibility" to link together the power to make choices for the public to a responsibility to do it as well as possible. Sometimes making the best choices relies on knowing as much about the choices we face as we think we know about ourselves. For some decisions, less is indeed more.

Professor Carl Thompson is a member of the "communication and decision making in healthcare" research group based within the Department of Health Sciences. The group undertakes research in a broad range of areas including the wider media and policy contexts through which health is represented and communicated as well as communication involving patients and health professionals within healthcare settings. As well as the communication of information in healthcare, the group also looks at individual professional and organisational acquisition and use of information and knowledge – particularly research knowledge – in judgments, choices and behaviour. For more details of the work of the Department of Health Sciences "communication and decision making in healthcare" research group contact: Professor Carl Thompson on *carl.thompson@york.ac.uk*

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THERAPY DELIVERED BY COMPUTER

DYSTOPIAN VISION OR THE FUTURE OF NHS PSYCHOTHERAPY?

Depression is depressingly common; with most people seeking help managed in primary care without access to specialist mental health or psychotherapy services. Prescribing anti-depressants is the norm rather than the exception. A general dissatisfaction with medication and concerns about rising rates of anti-depressant prescriptions has led to demands for the provision of psychological and socially-based (psycho-social) treatments and interventions. But what works and what is cost effective?

The mental health research group (MHRG) in the Department of Health Sciences at York, have built a programme of publicly funded research around the provision of effective and efficient psycho-social interventions for common mental disorders such as depression and anxiety.

History tells us that treatments for depression fall in and out of favour and that 'new and innovative' is not always best.[1] The need to evaluate the clinical and cost effectiveness of psycho-social treatments is the more urgent since the last Labour government introduced its policy to Improve Access to Psychological Treatments (IAPT). Supporting this policy has required a major investment in and expansion of an NHS workforce able to deliver psychological treatment. The aspiration is to deliver high volumes of effective therapy. This necessarily includes the provision of lower intensity therapy than has traditionally been the case. [2] The form of psychological therapy with the most research evidence underpinning it is cognitive behavioural therapy (CBT). This tackles unhelpful ways of thinking that come to the fore when a person is depressed (the 'C' bit of CBT). It also tackles the unhelpful avoidance and lack of positive re-enforcement which prevents recovery (the 'B' bit of CBT). The theory and evidence is good and there are clear training programmes and manuals which allow CBT to be delivered by a range of healthcare professionals over 12–20 weekly sessions. But hey, this is the computer-age. What if we could do all of this by computer? If we took away the therapist, and replaced it with a smart computer programme, we could slash waiting times and enhance access at minimal extra cost. Problem solved!

Many skilled and experienced therapists (some of whom work in my own Department) are anxious about all of this. The evidence to support computerised CBT (cCBT) is, on the face of it, quite good.[3] Some randomised trials do indeed show that cCBT is better than care delivered by many GPs; though none have compared cCBT with face to face CBT. When NICE reviewed this evidence in 2006, they were struck by the logic of the argument for cCBT but far less impressed by the research evidence. First, there are very few independent trials of cCBT. Most trials to date have been conducted by enthusiasts who have often developed the cCBT programmes that they evaluate. Forty years of psychotherapy research

Forty years of psychotherapy research tells us that 'allegiance effects' are very powerful, and that therapies gets less impressive when a proper independent evaluation takes place

tells us that 'allegiance effects' are very powerful, and that therapies gets less impressive when a proper independent evaluation takes place.[4] Second, there are no believable estimates of cost effectiveness. As Professor Alan Maynard (also in the Department) has reminded me for many years, what is cost effective is always effective, but what is effective is not always good value for the NHS. Lastly, there is little to answer the question, is cCBT acceptable to the people who have to use it: those struggling with depression?

So we really don't know whether we can replace the therapist with the computer and whether people will use this form of therapy if offered in the NHS. In the meantime NHS Trusts and IAPT programmes are falling over themselves to buy computerised CBT. This is not a cost-neutral exercise: money spent on cCBT is money that cannot be spent on something else (for example, family therapy for people with schizophrenia).

The NIHR Health Technology Assessment Programme prioritised trial-based research in this area in 2007, and my research group won a £1.8M commission to try and answer some of these questions. The REEACT-1 trial (Randomised Evaluation of the Effectiveness and Acceptability of Computerised Therapy) has now recruited 691 people with depression that is serious enough to be deemed significant by a healthcare professional. Each has now been allocated either a cCBT package or usual GP care. We will follow up these people over 2 years, to judge whether the cCBT they receive is clinically and cost effective. We will use qualitative methods to find out what stops, and equally what encourages, use of cCBT. The trial is led by the Unversity of York (with the York Trials Unit) alongside colleagues in the Universities of Manchester, Sheffield, and Bristol. REEACT is the largest (and most costly) trial of computerised CBT to date. Most importantly, we have no pecuniary interest in the outcome of the trial and the results will ultimately translate into more effective and efficient care for NHS patients. We will know the final results in 2013.

The York-end of the REEACT team includes Simon Gilbody (chief investigator); Liz Littlewood (current trial manager); Rachel Richardson (co-investigator); Phil Andersen (computer and telephone technical support); Catherine Hewitt (statistician); David Torgerson (all things trials); Ben Cross (paper-less data collection and databases). This REEACT-1 is one of three publicly funded trials of cCBT hosted by the MHRG. The MHRG is a collaborative enterprise between HYMS and Health Sciences.

Professor Simon Gilbody heads the "mental health" research group which is a joint collaborative enterprise between the University of York's Department of Health Sciences and the Hull York Medical School (HYMS). The mental health research group focuses on how best to help people with common mental health problems, such as depression and anxiety. Our aim is to ensure NHS mental health care is effective, efficient and equitable. For more details of the work of the "mental health" research group contact: Professor Simon Gilbody on *sg519@york.ac.uk*.

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Waiting times for psychological therapies significantly reduced

Mental ill health is one of Britain's biggest social problems. Mental health problems account for nearly 40% of people on incapacity benefit and a take up a third of all GPs' time. Long waiting times for those who need psychological therapy can impact terribly on their lives.

The Improving Access to Psychological Therapies (IAPT) programme was created to offer patients a realistic and routine first-line treatment and has since proven to improve people's health and well-being.

The Patient Case Management Information System (PC-MIS) is the first evidence-based patient administration system developed in the UK. It is a web-based management information system, developed as a collaboration by the Department of Health Sciences Mental Health Research Group and Health Sciences IT Services, with the specific purpose of managing high volume mental health patients, through stepped care, a process which provides psychological therapy at the least intrusive level to

the patient initially; and if unsuccessful, interventions are then 'stepped up'.

PC-MIS provides real-time information on patient progress, treatment regimens and on contacts between clinical staff and patients, enabling services to manage large numbers of cases efficiently. Use of the system has reduced waiting times and increased availability of accurate, up-to-date information.

PC-MIS was initially trialled at Doncaster NHS Trust as part of the Department of Health IAPT programme to provide mental health interventions to large numbers of people with common mental health problems such as anxiety and depression in an efficient and equitable way. A total of 3,996 referrals were managed in the first year and the programme has been shown to provide effective clinical outcomes and outstanding data completeness.

Most significantly, waiting times for psychological therapies have been effectively reduced. There are now more than 8,000 healthcare professionals licensed to use PC-MIS and over 300,000 referrals have been logged by over 60 NHS and other organisations. Following on from this success PC-MIS is being used in Australia and also on an IAPT Children's and Young Person's Pathway.

Byron George of the Department of Health Sciences Department says, "Our research shows that PC-MIS is a cost effective and efficient tool in patient care. With the Department of Health supporting the programme, PC-MIS has gained a reputation as an excellent vehicle to help improve the wellbeing and health of the nation."

Compassion, Co-operation and Competence in Care

To mark the launch of the Department of Health Sciences new undergraduate nursing programme, the BSc (Hons) Nursing, the Department recently hosted a conference entitled 'Compassion, Co-operation and Competence in Care – Nurse Education at the University of York'.

Featuring a range of international experts, the conference explored co-operative approaches to education which will be used in the new programme to facilitate the development of compassionate and competent nurses. The key speaker was internationally – renowned author and consultant, Etienne Wenger, whose work focuses on social learning systems. His book Communities of Practice has influenced the situated learning approach to the new curriculum and in particular the development of Co-operative Learning Groups.

York's new BSc (Hons) Nursing programme, is one of the first in the UK to be approved by the Nursing and Midwifery Council (NMC). Developed with health service providers and users, it provides an effective and innovative approach to student nurse teaching and learning, with teaching focusing on instilling qualities of compassion and care among student nurses.

LIVES REMEMBERED

DEVELOPING COMPASSION AND UNDERSTANDING ABOUT OLDER PEOPLE THROUGH STORYTELLING

Karen Spilsbury

After thousands of years and repeated attempts at technological 'improvement' human beings have found few more effective ways of communicating than storytelling. Stories are how we share information, turn it into knowledge; express our values and recount history; maintain customs; educate; entertain; and pass on wisdom. Perhaps, most importantly, stories act as a bridge between generations.

In health and social care, stories provide meaning and context for otherwise distant and abstract facts and information. Stories transform "one-step-removed" descriptions of patients and the conditions or situations they live with into engaging narratives with a start point, a plot and, ultimately, an end. Anyone who has ever experienced truly exceptional nursing care knows that nurses have always listened to the stories of the patients they care for. It is only recently though that the value of storytelling for educating nurses has been recognised. The premise sounds simple: there can be few better ways of shaping how student nurses' think, feel and act towards older people than by encouraging them to spend time with an older person, listen to what they have to say, and then interpret, give meaning to raw words, and communicate their understanding back to the person themselves and the wider world?

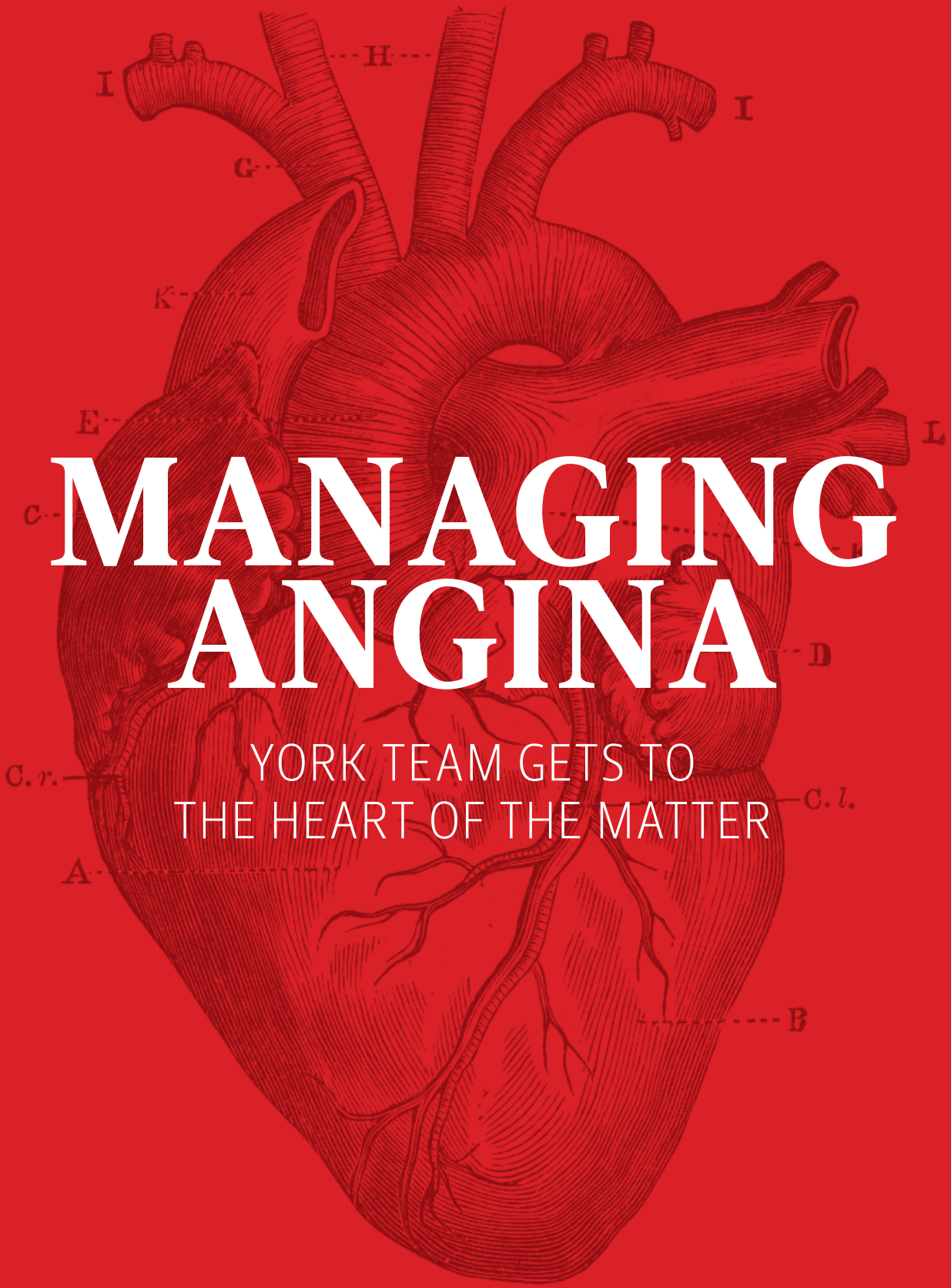
Above all else, nurses should ensure older people and their loved ones receive the care they require and deserve. This requires empathy, compassion, dignity and respect. Nurse educators, are responsible for preparing nurses for this important role. It can be a difficult task; student nurses can struggle to see the myriad of rich life experiences that shape us all and determine who will be in old age. Why should this surprise us? Many student nurses have little experience of being with older people. Societal perceptions and stereotypes of ageing often devalue rather than praise older peoples' contributions. Of course, it is easy to exhort student nurses to, "see an older person as they really are": a unique individual who may have loved and been loved, been part of friendships, enjoyed the ups and downs of family life, risen to the top of their career or enabled others to clothe and feed their families; the permutations are endless, and the educational challenge substantial. Recent media coverage suggests that we don't always get it right. Almost all reports of poor nursing care for older people reveal a lack of empathy, compassion, dignity and respect – qualities that are not a direct result of staff shortages or inadequate resources.

Some of our student nurses have been writing creative stories based on the lives of the older people they have befriended to try and develop these qualities. The stories have been brought together in a student-authored book celebrating these lives. It's a truly collaborative approach, bringing together nurse teachers, creative writing tutors, care home residents, their families and care home staff. The approach has transformed how student nurses think (and feel) about older people. Storytelling has meant that student nurses have considered not just who an older person might be, but also given them the skills and confidence to dare to find out. The bonds formed, afforded students a glimpse into, and a chance to be moved by, the lives of older human beings and recognise some of the experiences that shaped the older person in front of them in their own lives.

The module team includes Ros Brownlow (Module Leader), Lizzi Linklater, Iain Barr and Karen Spilsbury. Evaluation of the module and production of the books were funded by a grant from the Higher Education Academy, Health Sciences and Practice Mini-project Scheme, with matched funding from Bupa.

The evaluation report can be accessed at: *http://bit.ly/GVyVqp*

There are now three books produced by the student authors. These can be purchased at: *http://bit.ly/z8Gfm4*



MANAGING ANGINA

YORK TEAM GETS TO THE HEART OF THE MATTER

Dramatic results have been achieved in rehabilitation programmes devised by researchers at York to help patients slow the progression of coronary disease.

A recent review conducted by Professor Bob Lewin of York's Department of Health Sciences found that over 5,000 more patients received cardiac rehabilitation in 2008 to 2009 than in the previous two years. This increase is due to a large degree to the research group's combined efforts to both raise patient awareness about this service, but also to help monitor the cardiac rehabilitation levels of service through their annual audit and resulting report.

Another of the research group's long standing projects is The Angina Plan, a home-based rehabilitation programme, now running across the UK and promoted through NHS hospitals, GP surgeries and clinics. The programme includes a self-help goal setting manual for patients and the distance training of nursing staff to support them as facilitators. The Angina Plan is currently used in 63 NHS facilities, ranging from primary care clinics to rapid access chest pain clinics, and around 1,000 facilitators are now employed on the project.

A randomised controlled trial conducted among 142 patients with newly diagnosed angina, compared the self-managed Angina Plan with a routine, practice nurse-led educational session. Results showed that symptoms including anxiety, depression and frequency of angina episodes were reduced in the Angina Plan patient group. The study concluded that the Angina Plan was significantly better than secondary prevention nurse counselling at reducing anxiety and depression, and improving physical functioning, and was found to reduce angina by 43%.

As a result of the study, the Angina Plan is now included in the clinical pathway for the management of stable angina, set by the Scottish Intercollegiate Guideline Network (SIGN). It is also referred to in the European Guidelines for the management of stable angina as a programme shown to improve outcomes.

As a clinical psychologist with expertise in cognitive-behavioural treatments, chronic disease management and health behaviour change, Professor Lewin, who leads the BHF Care and Education Research Group, has a unique approach to developing effective self-management programmes.

"Our group's main focus is to develop and evaluate methods to help patients change their lifestyle, achieve effective self-management of their illness and to reduce their risk of future heart disease." Through various booklets, manuals and multimedia monitoring tools patients are encouraged to set realistic aims about introducing health improving behaviours in their lives, such as a more active lifestyle, better diet and deeper understanding of their condition for themselves and their carers.

"Our group's main focus is to develop and evaluate methods to help patients change their lifestyle, achieve effective self-management of their illness and to reduce their risk of future heart disease"

Heart disease affects an estimated 2.6 million people in the UK. In response to demographic changes and the growing burden of chronic diseases associated with a western lifestyle, governments around the world have started to focus on improving patients' self-management of their illness. As a result of this growing trend towards self-management, the research group is involved both in primary research and in advising and supporting developments at national and international levels.

Working closely with the British Heart Foundation which is funding a large part of the research, the group has developed and evaluated chronic disease management interventions through randomised controlled trials. For example, another member of the research group Jill Pattenden is supervising two BHF project evaluations. The first, Heart Matters is an online lifestyle check programme which aims to support people in adopting healthy behaviour. Over 19,000 people have registered online and completed the check since January 2010. The second evaluation, Hearty Lives, is a major BHF programme, designed to reduce health inequalities in 11 deprived areas of Britain.

The research group also runs the National Audit of Cardiac Rehabilitation linking the majority of the cardiac rehabilitation programmes in England, Wales and Northern Ireland in a patient level audit of processes and outcomes. It shows locally and nationally what these services are achieving and identifies any problems of inequitable provision for particular sections of the population.

According to Professor Lewin: "Using our data, the British Heart Foundation has campaigned very successfully to bring an awareness of the problems of provision to Parliament and the Department of Health, resulting in an number of actions at the policy level; our audit will be able to record whether if any improvements reach the patients."

Professor Bob Lewin heads up the "cardiac care and education" research group based within the Department of Health Sciences. The research group helps the British Heart Foundation monitor the use of its patient support groups, assesses funded programmes for heart failure nurses, and evaluates innovative nursing roles which have been sponsored by the BHF. It also plays a major role in research intelligence, drawing upon the wide range of health-related resources at York to keep BHF cardiac care and education departments and health managers who are responsible for cardiac services, up-to-date with new evidence. For more details of the work of the Department of Health Sciences "cardiac care and education" research group contact: Professor Bob Lewin on bob.lewin@york.ac.uk

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