Fri 24 Aug 2018

View this email in your browser

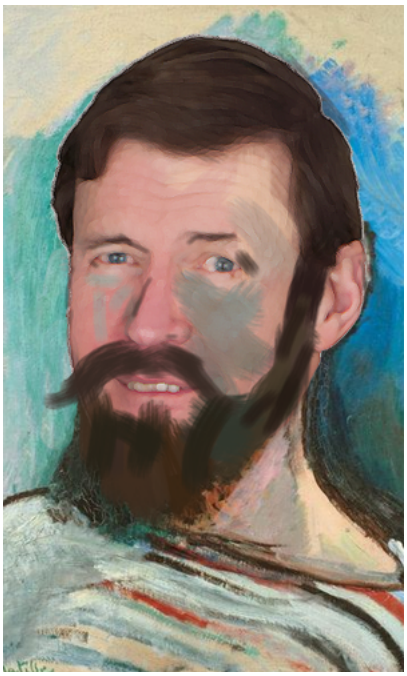
Share Tweet Forward to Friend

NIHR CLAHRC West Midlands News Blog

This work is funded by the National Institute for Health Research (NIHR) Collaboration for Leadership in Applied Health Research and Care (CLAHRC) West Midlands. The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health

NHS National Institute for Health Research

Download PDF



Welcome to the latest issue of your CLAHRC West Midlands News Blog where we talk about our CLAHRC's approach to PCIEP. We also look at recent articles on the influence of gender on behaviour in the operating theatre; the effect common distractions can have in an emergency department; patients' experiences of weekend hospital care; how subconscious behaviour could be influenced by electronic patient records; the impact of acupuncture on IVF success; and how people react to a real-life version of a classical philosophical/ethical dilemma.

As usual, we also have details of the latest news and events; this issue's quiz question; and highlight some of our latest publications.

We hope that you find these posts of interest, and we welcome any comments. You can find previous issues of our News Blog here.

Director's Blog

Our CLAHRC's Unique Approach to Public and Community Involvement Engagement and Participation (PCIEP)

All NIHR-funded research is required to involve the public/patients at all stages of the research process. Here in CLAHRC WM we are ardent supporters of this principle, and we hew to the INVOLVE guidelines in doing so. We are keen to improve our ways of involving patients and the public in our research and have used the recently-published Standards for involvement to reflect on our activities and develop better ways of working.

CLAHRC WM is a Service Delivery Research Organisation. Because we are in the business of shaping the way health services are designed and delivered, we have given careful consideration to our approach to public and community involvement in research. Our unique approach and rationale is described below.

Let's start with a basic point. Service delivery research is, in most instances, best conducted prospectively. This is for three reasons:

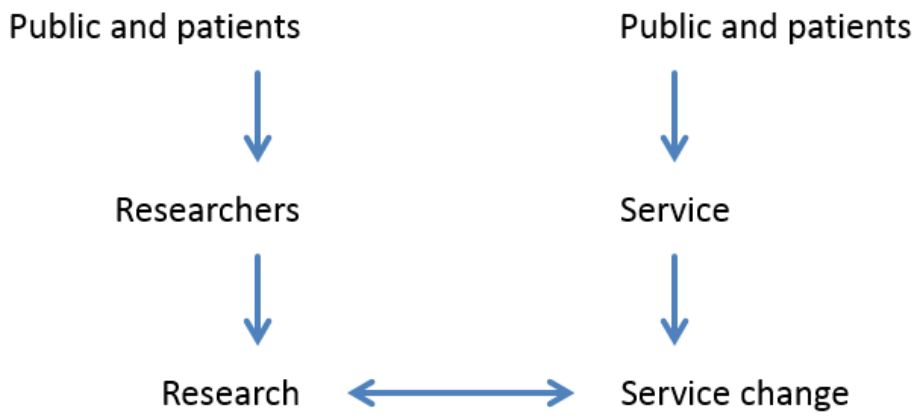
1. Prospective involvement of researchers provides access to the world's literature, along with critical appraisal of that literature, to help inform the selection and design/adaptation of interventions.
2. Researchers can assist in co-design and alpha-testing of proposed changes, deploying disciplines such as behavioural economics, operations research, and organisational theory.
3. Prospective evaluations are generally more powerful (valid) than purely retrospective studies – for example, providing baseline data and information on both mediating, clinical processes and outcome variables.[1]

This takes us to the next basic point – service interventions are in the purvey of managers who control the purse strings, *not* the researchers. Yes, researchers can *influence* intervention selection and deployment, but they do not have the final say.

A third basic point is that service managers have a duty to consult patients and the public, just as researchers do.

We *could* have a model for public involvement with one set of *patient*/public advisors advising on research, and another set advising on interventions, as in in Figure 1.

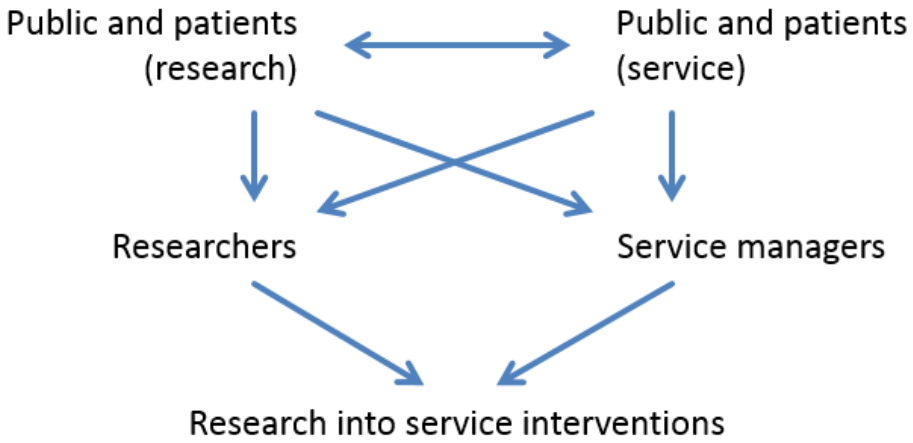
Figure 1: Separate Involvement of PPI (PCIEP) in Research and in Service



However, such a plan seems an opportunity missed. It could result, for instance, in conflicting advice, with patients/public in the research sector advocating evaluation of an intervention that their counterparts in the service have not prioritised.

We are *not* advocating combining PCIEP in research with patient and public involvement in the service to create just one monolithic structure. There are many research issues that are not relevant in a purely service context. We do, however, advocate an integrated approach, as represented in Figure 2. By involving patient and public contributors that are also involved in advising the service, we generate a group of people to champion our research and help ensure evidence is used in practice.

Figure 2: A system that integrates patient and the public across the service and research domains



So what can we do to achieve this level of integration? We do not have all the answers, as this is an evolving idea. However, here is what we do in CLAHRC WM:

1. We try to recruit public contributors who also have (or have had) a role in advising the service. We target them and give some preference to such people in our competitive selection process.
2. We hold *joint* consultative sessions with service managers, our public contributors, and (when possible) those who advise the service. Such was the situation, for example, in the 'Dragon's Den' events we held to select priorities for our forthcoming Applied Research Collaboration application.
3. Working with PCIEP and service partners, we create structures where research PCIEP, service PCIEP (say from Healthwatch) and CLAHRC WM researchers work together. We have worked with Sustainability and Transformation Partnerships (STPs) and our local Academic Health Science Network (AHSN) to create these structures.

Our strategy has evolved over considerable discussion in the CLAHRC WM and we have 'market tested' our approach with Simon Denegri, the past head of INVOLVE. However, we welcome feedback, advice, and opinions from readers.
Those who wish to read more on our work and/or thoughts on patient and public involvement can do so by clicking here.

-- Richard Lilford, CLAHRC WM Director
-- Magdalena Skrybant, PPIE Lead

Leave a comment

Reference

Return to top

CLAHRC WM Quiz

What disease is carried by the *Triatoma* bugs ('kissing bugs')?

Email CLAHRC WM your answer.

Answer to our previous quiz: The **Kingdom of Bhutan** is the only country that is currently carbon negative. Recent figures estimate the country emits 1.5 million tonnes of carbon each year, while its forests absorb over 6 million tonnes.

Congratulations to Effie Richards and Alan Hargreaves who were first to answer correctly.

Director's Choice - From the Journals

The Sexual Politics of the Operating Theatre

When I lead the Patient Safety Research Portfolio on behalf of the Chief Medical Officer, I commissioned an ethnographic study of the operating theatre environment from Steven Harrison of Manchester.[1] The study chronicled a tale of persistent interruption during surgical operations – telephones rang, messages were sent from the wards, people burst in with the latest cricket score, and so on. Harrison speculated that such a string of interruptions would be inimical to patient safety. He was right; we have cited evidence that frequent interruptions are indeed a threat to patient safety.[2] Repeated distraction intrudes on working memory and thereby predisposes to error – a factor long recognised in aviation (see also the following news blog article).

It turns out that more subtle processes are also in play – gender mix has a large effect on a behaviour, at least according to observations of 400 doctors and nurses during 200 surgical operations.[3] The study was carried out by experts on animal behaviour and the findings showed that the doctors and nurses tended to mimic those of animals in the wild. Think of that next time you have a surgical operation! Conflict between individuals was twice as likely in teams led by men as in teams led by women. Regardless of who led the team, conflict was much less when the team leader was the opposite gender to the rest of the team.

In previous issues of your news blog, we have cited comparisons between male and female doctors.[4] [5] In all cases the female doctors show higher performance. As pointed out in these blogs, these findings are replicated over many complex tasks in the modern economy. I am led to the conclusion that the evolutionary characteristics of women are more conducive for high performance in the modern collaborative economy, then those which males acquired in order to hunt animals and repel enemies. But all is not lost for us men. Awareness of our own foibles is the first step to adaptation and more effective functioning in the modern workplace.

-- Richard Lilford, CLAHRC WM Director

Leave a comment

References

Distraction and Clinical Errors in an Emergency Department

What is not in doubt, is that distraction increases error rates in laboratory studies.[1] However there are very few studies of the effect of distracting clinicians in the real world of clinical practice. Such studies are very difficult to mount since they require real-time observation and a valid measure of clinical performance.

These problems were surmounted in an interesting and important study from Australia.[2] Distraction was observed in real-time by trained observers in the

emergency department. Performance was measured by means of prescription error rates, which were adjudicated independently of the study by trained pharmacists. The independent effect of various factors that might interact with distraction were estimated by means of multi-variable analysis. The study showed that, independent of age or seniority, there was a very large increase in clinical prescribing errors when doctors were distracted.

Previous laboratory studies have shown a relationship between so called 'working memory' and predisposition to make errors when distracted. So the investigators carried out a psychological test for working memory in the clinical study. They found that, independently of age, the higher the working memory, the lower the effect of distraction.

This study provides convincing evidence that reducing distractions is an important requirement in clinical environments, such as the operating theatre and the emergency department. Of course, there may be a trade-off here; avoiding distractions might place other patients at risk. And it is hard to see how distractions can be totally avoided in a frenetic environment, such as that prevailing in the emergency department.

So, it is important not to act in a reflex way, given these findings, and mandate zero tolerance for distraction. But we should bear down on distraction, as discussed in the previous article.

-- Richard Lilford, CLAHRC WM Director

Leave a comment

References

Weekend vs. Weekday Care as Viewed Through the Eyes of the Patient

In this news blog we have previously discussed patient's experiences of hospital care at weekends.[1] Now a paper published in BMJ Quality and Safety has conducted a secondary analysis based on two surveys to determine whether patients treated in hospital had different experiences of care on the weekends compared to weekdays. [2]

These results may surprise you.

The view of patients attending accident and emergency was *more favourable* over the weekends than over weekdays. Similarly patients admitted on a weekend felt that communication was *better* than those admitted on weekdays. There was no difference on the various other dimensions of perceived care. Patients admitted at the weekend did not perceive worse care than those admitted on weekdays on any of the dimensions of care described in the paper (including waiting times,

cleanliness, information on discharge, and overall experiences). Multiple regression was used to adjust for various factors such as referral route, destination on discharge, ethnicity, sex, age group, or whether or not the questions were answered by the patient or a proxy.

Of course, perceptions of care are only loosely correlated with the technical quality of care.[3] Nevertheless, these data are very interesting and call into question the notion that weekend care is as bad as sometimes claimed.

-- Richard Lilford, CLAHRC WM Director

Leave a comment

References

If you Have Time for Only One Article

…Then I would suggest a well written article by Vaughn and Linder.[1] These authors start with the notion that a lot of human behaviour is driven by the subconscious mind; we have to use heuristics (cognitive shortcuts) to deal with complex environments and free up the conscious brain to tackle novel or difficult aspects of any task. This applies particularly to clinical care, which would be unacceptably slow if every step along the way was subject to conscious deliberation. Physicians with busy workloads cope by making judicious short cuts based largely on subconscious mental processes.

The article goes on to explain how manipulation of the environment can nudge subconscious behaviour in one direction or another, quoting from the 2017 Nobel Prize (Economics) winning work of Richard Thaler.

Then the article develops the important point that first, much of healthcare is now governed by the electronic patient record, and second, that doctors' behaviour can easily be nudged one way or the other through such electronic records. I have conducted research into the use of computers to provide decision support in the consultation,[2] but this article argues convincingly for the use of screen layout and default options to influence clinical behaviour. It turns out that there is already an extensive literature on this topic, particularly in the area of antibiotic prescribing and stewardship. It would appear from the research results quoted in this article, that such electronic nudges can be extremely effective.

We have argued elsewhere in this news blog that computerised records should be carefully designed and alpha-tested,[3] and the ideas in this article certainly make provocative reading.

-- Richard Lilford, CLAHRC WM Director

Leave a comment

References

A Trial of Acupuncture vs. Sham Acupuncture in Women Undergoing In Vitro Fertilisation

All treatments can be divided into two broad groups: those that follow the enlightenment tradition and those that do not. Many of the latter precede the Enlightenment, a period during the late 17th and early 18th century. Homeopathy and alchemy do not make sense in an Enlightenment-inspired world. The probability that a treatment will prove to be ineffective is much higher when it is not based on pathophysiological knowledge. This is especially so when the outcome of the study is objective.

A recent study in JAMA confirms this principle.[1] This was a randomised trial of 809 women undergoing in vitro fertilisation who received either acupuncture or sham acupuncture at the time of ovarian stimulation and embryo transfer. There was no significant difference in live births between the two groups; in fact they were almost identical with a relative risk of 1.02. The study was reported according to the CONSORT statement for acupuncture trials – incidentally I did not know that there was such a statement specifically for trials of acupuncture.[2]

This is an interesting study and includes two authors that hail back to my halcyon days as an obstetrician and gynaecologist.

Anyone want to join me on a multi-indication review [3] of acupuncture across many conditions?

-- Richard Lilford, CLAHRC WM Director

Leave a comment

References

A Real-Life Trolley Problem

News blog readers may be familiar with some form of the trolley problem, an ethical thought experiment positing a runaway tram heading towards five people tied on to the track – you can pull a lever to redirect the tram but there is a single person tied to that track – what do you do? Researchers at Ghent University (Belgium) decided to see what people would do in a real-life trolley problem, and whether their responses to a hypothetical dilemma were an accurate reflection of how they would react in reality.[1] Around 200 student participants were tasked with choosing to either administer a non-lethal electroshock to a single mouse or to do nothing and let five other mice to be shocked (all shocks were, of course, simulated). The results showed

that earlier responses to hypothetical dilemmas were not predictive of real-life behaviour (p=0.406). Further, a separate group of 83 students were given a hypothetical version of the same dilemma and, when results were compared, the authors found that participants were approximately twice as likely to state that they would not press the button in the hypothetical experiment (34%) (leaving the five mice to be 'shocked'), than actually did not press it in the real-life experiment (16%) (p=0.017). This goes against previous wisdom that people would feel guiltier about intervening (pulling the lever, pressing the button) the more 'real' the situation gets. The authors believe such findings could have implications in programming self-driving cars that may have to decide between colliding with an oncoming vehicle or swerving into pedestrians.

Readers may also want to read our previous News Blog on revisiting the Milgram experiments, where participants were encouraged to administer (simulated) electrical shocks.[2]

-- Peter Chilton, Research Fellow

Leave a comment

References

Return to top

News & Events

Congratulations

Congratulations to Professor Swaran Singh. Youth Mental Health theme 2, who has been elected Vice President of the International Association of Youth Mental Health.

Reducing Long Stays in Hospital

The King's Fund, an independent health care think tank, are holding a conference in Birmingham on '*Reducing Long Stays in Hospital: how to prepare properly for winter and learn from past pressures'.* This will be held on Tuesday 16 October 2018. More information can be found on their website. University of Birmingham staff are eligible for a 25% discount - please contact clahrc@warwick.ac.uk for details.

Survey on Balance of Care

Researchers from University College London and the Nuffield Trust are working with CLAHRC North Thames to carry out a survey seeking patient, professional and service perspectives on the balance of care between specialist and generalist

models in hospitals for patients with acute medical conditions. The survey should only take 5-10 minutes to complete and a link can be found on the CLAHRC North Thames website, along with further information.

Improving Outcomes: the WM-AHSN Prevention and Self-Care Event

The West Midlands Academic Health Sciences Network are holding an event on 'Putting Prevention into Practice: Improving Outcomes' on Friday **14 September 2018** in Birmingham. This event will provide an opportunity to explore the impact and potential of prevention programmes and how they can changes the lives of everyone by improving their health, environments and/or services received. For more information, and to register, please click here.

Funding Opportunities

18/124 NIHR Public Health Research Programme - Researcher-led Workstream. Deadline is 13:00 on 13 November 2018.
The programme is accepting stage 1 applications, including the following highlight notices:

- London Devolution.
- Complex health and care needs in older people.
- Brain tumours.

Diabetes UK have project grants available to provide support for high-quality, hypothesis-driven, diabetes-related research. Deadline is 1 December 2018.

MRC and NIHR have issued a joint call for research projects into disease clustering in multi-morbidity in the UK. Funding of up to £600,000 is available for up to 36 months. Deadline 16:00 9 October 2018.

Return to top

Recent Publications

Muller S, Hider S, Machin A, Stack R, Hayward RA, Raza K, Mallen C. Searching for a prodrome for rheumatoid arthritis in the primary care record: A case-control study in the clinical practice research datalink. *Semin Arthritis Rheum*. 2018.

Tshimologgo M, Heliwell T, Hider S, Mallen C, Muller S. The availability of health information to patients with newly diagnosed polymyalgia rheumatica: results from the Polymyalgia Rheumatica (PMR) Cohort study. *Prim Health Care Res Dev*. 2018.

Return to top