





# NIHR CLAHRC West Midlands News Blog

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Welcome to the latest issue of your NIHR CLAHRC West Midlands News Blog.



Welcome to the latest issue of our News Blog, where we compare cognitive behavioural therapy and mindfulness therapy, not just for effectiveness, but also from a philosophical perspective. We also take a look at recent papers on whether the average length of hospital stay is decreasing; improving access to higher education for people from disadvantaged backgrounds; the effectiveness of mindfulness for lower back pain; how to reduce the global burden of diagnostic error; and an update on researchers advocating their own work.

We also feature a guest blog on <u>communicating</u> <u>scientific evidence to the public</u>.

Further, we bring you the latest <u>news</u>; have our latest <u>quiz question</u>; profile the new Head of Programme Delivery for CLAHRC WM, <u>Anne-Marie</u>

<u>Brennan</u>; detail some of our <u>latest publications</u>; and look at a recently published BITE on an <u>ACAP tool to support evidence-based commissioning decisions</u>.

We also have a <u>reply</u> to a recent blog.

We hope that you find these posts of interest, and we

welcome any comments. You can find previous issues of our News Blog <u>here</u>.

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# Director's Blog

# **Cognitive Behavioural Therapy vs. Mindfulness Therapy**

It is known that mindfulness therapy is effective in improving depression and, in many circumstances, in improving chronic pain (see <u>later in News Blog</u>). What is not so clear is whether it is better than the more standard therapy of cognitive behavioural therapy (CBT).

Cognitive behavioural therapy aims to abolish or reduce painful and harmful thoughts. Mindfulness therapy on the other hand does not seek to extirpate the depressing thoughts, but rather to help the person disassociate themselves from the harmful consequences of these thoughts. It often involves an element of meditation.

We have found three recent studies which compare CBT and mindfulness therapy head-to-head for depression.[1-3] In all three RCTs the two therapies were a dead heat. In short, both methods seem equally effective and certainly they are both better than nothing. But does this mean that they are equal; that the choice does not matter one way or the other?

In this article I argue that the fact that the two therapies all equally effective in improving mood, does not mean that they are equivalent. This is because they are designed to have different effects – abolition of harmful thoughts in one case, learning to live with them in the other. So it is reasonable to ask which one would prefer, abolishing the painful thoughts or simply learning not to be affected by them.

Philosophically, the argument behind CBT is that thoughts, at least at a certain level, are a kind of behaviour. They are a behaviour in the sense that they can be changed under conscious control. Mindfulness therapy does not attempt to 'over-write' thoughts. This means that the two therapies, in so far as they achieve their objectives, are not philosophically equivalent. Moreover, there are arguments in favour of removing the harmful thoughts, even if this does not result in any greater improvement in mood than the counter-factural. Consider a man whose wife is annoyed by certain movements that he is unable to control. It is surely much better, both from her point of view and from the point of view of the husband, that these painful thoughts should be removed altogether, rather than just tolerated.

Alternatively, consider a person who is chronically distressed by a recurring memory

of the painful death of a parent. Again, it is surely better that this person trains himself to think of another aspect of the parent's life whenever the troubling thoughts recur, than to simply continue to remember the death, but not get upset by it.

So, I think that CBT is philosophically preferable to mindfulness therapy, even if it is no more effective in improving mood. From a philosophical point of view, it is important to develop a high rectitude way of thinking. When negative or morally questionable thoughts pop into the brain, as they do from time to time, these should be suppressed. A racist thought, for example, should be replaced with thoughts of higher rectitude. It is the purpose of the examined life to be able to control negative or bigoted thoughts and supplant them with more positive thoughts under conscious control. From this philosophical perspective CBT can be seen as an extension of the human ability to supplant negative or reprehensible thoughts with ones that are more positive or of higher rectitude. I choose CBT over mindfulness; for all that they might be equally effective in elevating mood, psychiatric treatments have implications that go beyond purely clinical outcomes - since they affect the mind there is always a philosophical dimension.

-- Richard Lilford, CLAHRC WM Director

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# Guest Blog

# 'Information is Not Knowledge': Communication of Scientific Evidence and How it Can Help us Make the Right Decisions

Every one of us is required to make many decisions: from small decisions, such as what shoes to wear with an outfit or whether to have a second slice of cake; to larger decisions, such as whether to apply for a new job or what school to send our children to. For decisions where the outcome can have a large impact we don't want to play a game of 'blind man's buff' and make a decision at random. We do our utmost to ensure that whatever decision we arrive at, it is the right one. We go through a process of getting hold of information from a variety of sources we trust and processing that knowledge to help us make up our minds. And in this digital age, we have access to more information than ever before.

When it comes to our health, we are often invited to be involved in making shared decisions about our own care as patients. Because it's our health that's at stake, this can bring pressures of not only making *a* decision but also making the *right* decision. Arriving at a wrong decision can have significant consequences, such as over- or under-medication or missing out from advances in medicine. But how do we know how to make those decisions and where do we get our information from? Before we

Available at: http://mailchi.mp/e4c78e0293be/clahrcwm-21-07-17

start taking a new course of medication, for example, how can we find out if the drugs are safe and effective, and how can we find out the risks as well as the benefits?

The Academy of Medical Sciences produced a report, 'Enhancing the use of scientific evidence to judge the potential benefits and harms of medicine',[1] which examines what changes would be necessary to help patients make better-informed decisions about taking medication. It is often the case that there is robust scientific evidence that can be useful in helping patients and clinicians make the right choices. However, this information can be difficult to find, hard to understand, and cast adrift in a sea of poor-quality or misleading information. With so much information available, some of it conflicting – is it any surprise that in a Medical Information Survey, almost two-thirds of British adults would trust experiences of friends and family compared to data from clinical trials, which only 37% of British adults would trust?[2]

The report offers recommendations on how scientific evidence can be made available to enable people to weigh up the pros and cons of new medications and arrive at a decision they are comfortable with. These recommendations include: using NHS Choices as a 'go to' hub of clear, up-to-date information about medications, with information about benefits and risks that is easy to understand; improving the design, layout and content of patient information leaflets; giving patients longer appointment times so they can have more detailed discussions about medications with their GP; and a traffic-light system to be used by the media to endorse the reliability of scientific evidence.

This is all good news for anyone having to decide whether to start taking a new drug. I would welcome the facility of going to a well-designed website with clear information about the risks and benefits of taking particular drugs rather than my current approach of asking friends and family (most of whom aren't medically trained), searching online, and reading drug information leaflets that primarily present long lists of side-effects.

Surely this call for clear, accessible information about scientific evidence is just as relevant to all areas of medical research, including applied health. Patients and the public have a right to know how scientific evidence underpinning important decisions in care is generated and to be able to understand that information. Not only do patients and the public also make decisions about aspects of their care, such as whether to give birth at home or in hospital, or whether to take a day off work to attend a health check, but they should also be able to find and understand evidence that explains why care is delivered in a particular way, such as why many GPs now use a telephone triage system before booking in-person appointments. Researchers, clinicians, patients and communicators of research all have a part to play.

In CLAHRC West Midlands, we're trying to 'do our bit'. We aim to make accessible a sound body of scientific knowledge through different information channels and our efforts include:

- Involving patients and the public to write lay summaries of our research projects on our website so people can find out about the research we do.
- Communication of research evidence in accessible formats, such as CLAHRC BITEs, which are reviewed by our Public Advisors.
- *Method Matters*, a series aimed to give members of the public a better understanding of concepts in Applied Health Research.

The recommendations from the Academy of Medical Sciences can provide a useful starting point for further discussions on how we can communicate effectively in applied health research and ensure that scientific evidence, rather than media hype or incomplete or incorrect information, is the basis for decision-making.

-- Magdalena Skrybant, CLAHRC WM PPIE Lead

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# CLAHRC WM Quiz

Who first discovered the HIV retrovirus that causes AIDS?

Email CLAHRC WM your answer.

Answer to our previous quiz: <u>Camilo Golgi</u> was awarded the Nobel Prize in Physiology or Medicine (jointly with Santiago Ramón y Cajal) in recognition for his work on the <u>structure of the nervous system</u>, which included discovery of the Golgi stain ('black reaction) to stain nerve cells in the brain.

Congratulations to Ahmed Sarki, Sian Scogings and Mark Gabbay who were first to answer correctly.

# Director's Choice - From the Journals

# **Length of Hospital Stay**

The average length of hospital stay for patients has 'plummeted' over the last thirty years, from 10 days in 1983 to 5 days in 2013.[1] However, the proportion of patients discharged to a nursing facility has quadrupled over this same period.[2] So, from the

point of view of the patient, the stay away from home has not changed as much as it might be inferred from an uncritical analysis of inpatient stays. So, how have home-to-home times changed? This was assessed by Barnett et al.[3] on the basis of Medicare administration claims for 82 million hospitalisations over the years 2004 to 2011 inclusive.

Yes, the mean length of hospital stay declined (from 6.3 to 5.7 days), but the mean length of stay in post-acute care facilities increased from 4.8 to 6 days. Total home-to-home time increased from 11.1 to 11.7 days. This is not necessarily a bad thing, but it must be taken into account in assessing costs and benefits of care. The risk of iatrogenic harm and costs are lower in nursing facilities than hospitals. However, the article cited here does not consider the possibility that these risks and costs are not lower for the group of people in nursing facilities who would otherwise be cared for in hospital.

-- Richard Lilford, CLAHRC WM Director

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#### References

# Another Interesting Trial of an Educational Intervention – This Time Concerning Access

Young people from disadvantaged backgrounds are less likely to apply to elite universities, both in the UK and the US, than those from economically better-off backgrounds. This finding applies even after controlling for exam results prior to application – i.e. the GCSE results in England. So Sanders and co-authors from the Behavioural Insights Team and the English Department for Education did an inexpensive trial of an inexpensive intervention.[1] The outcomes were application to, and acceptance into, an elite university (defined as belonging to the Russell Group). The intervention consisted of a letter sent to students from disadvantaged backgrounds who were on track to attend an elite university given their GCSE grades. Eligible schools were randomised to control conditions or one of three interventions: to receive a letter written by a pseudonymous male student (Ben) at Bristol University on Department for Education note paper; to receive a similar letter from a female student (Rachel) at the same university; or to receive letters from both Ben and Rachel. Three hundred schools (clusters) and 11,104 students participated. It was then a simple matter to collect the outcomes from the agency that supervises the admission process (the Universities and Colleges Admissions Service, UCAS). Receipt of a letter was associated with a non-significant increase in applications, and eventual admission to, an elite university. The increase was greatest and statistically significant for students who received both letters - from 8.5% acceptance among controls, to 11.4% in the 'double dose' intervention group – an increase of 2.9 percentage points (or 34 percent relative risk). Certainly, these results add to growing evidence concerning aspirations in education – see recent News Blogs on keeping

children back a year [2], streaming [3], and the Michelle Obama effect.[4]

-- Richard Lilford, CLAHRC WM Director

# Leave a comment

#### **References**

#### Mindfulness for Low Back Pain

Lower back pain is fast becoming a major public health problem. Perhaps because of our increasingly sedentary life style it affects around 75% of the population at some point during their lives. However, there is no optimum clinical treatment. In light of this, many people turn to complementary therapies. A recent systematic review by Anheyer and colleagues [1] looked at the effectiveness of such a therapy, mindfulness-based interventions. Mindfulness-based stress reduction programmes (MBSR), and mindfulness-based cognitive therapy (MBCT) (see main article) usually involve activities such as meditation, yoga, and focusing attention on different parts of the body. The authors identified seven RCTs involving 864 patients, and found that MBSR was associated with statistically significant short-term improvements in pain, compared to standard care, though these weren't sustained in the long term, and could not be deemed clinically meaningful. However, there were no significant differences when compared to active comparators, such as health education programmes. These were only a limited number of RCTs and there is still a need for long-term RCTs that compare MBSR against active treatments.

-- Peter Chilton, Research Fellow

# Leave a comment

#### <u>Reference</u>

# Reducing the Global Burden of Diagnostic Errors

A recent issue of the BMJ Quality and Safety carried an interesting review on the global burden of diagnostic errors in primary care. [1] The review looked at the most common symptoms and conditions affected by such errors; summarised the current interventions; and suggested what could be done next to reduce the global burden of diagnostic errors. The authors found that:

- Typically there are multiple 'root causes' for errors, including both cognitive errors, such as failing to synthesise evidence, and system flaws, such as communication issues.
- The most common categories of harmful diagnostic errors are infections, cardiovascular disease, cancer, and diseases in children.
- Very few interventions to reduce errors have been tested empirically.
- In order to reduce errors successfully there is likely to be a need for multiple interventions.

They go on to propose eight themes for interventions to measure and reduce diagnostic error:

- 1. Improving diagnostic reasoning.
- 2. Encouraging government policies that support primary care.
- 3. Improving information technology.
- 4. Involving patients.
- 5. Improving access to diagnostic tests.
- 6. Developing methods to identify and learn from diagnostic errors.
- 7. Optimising diagnostic strategies in primary care.
- 8. Providing systematic feedback to clinicians about their diagnoses.

The authors call on the World Health Organization to bring together concerned bodies to address the many challenges that are common across all countries and the opportunities that can be taken to reduce diagnostic error. CLAHRC WM collaborators are working on a more detailed classification system for the theoretical basis for diagnostic error.

-- Peter Chilton, Research Fellow

# Leave a comment

#### **Reference**

**Update on Scientists Being Held Accountable for Impact of Research** 

I recently wrote a news blog on the <u>dangers of researchers being advocates for their own work</u>. Readers may be interested in an article from an authoritative source that I chanced upon recently, published in BMC Medicine (Whitty JM. <u>What Makes an Academic Paper Useful for Health Policy?</u> *BMC Med.* 2015; **10**: 301).

-- Richard Lilford, CLAHRC WM Director

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# News

# **Job Opportunity at University of Warwick**

Warwick Evidence are seeking to appoint up to two Assistant Professors in Health Technology Assessment and Epidemiology/ Implementation Science to contribute to their expanding programme of Health Technology Assessment. The job is for a fixed-term contract until 31 March 2021, with an annual salary of £39,324 - £46,925. For further details, and to apply, please click here. Application deadline is 14 August 2017.

#### **Research with Care Homes**

NIHR have produced a Themed Review, 'Advancing Care: Research with Care Homes'. The report begins with the statement "Every day, there are more than twice as many people living in care homes in England and Wales than staying in hospital" and brings together 44 projects across the NIHR that will "help care homes to support residents to live well, age well and achieve a comfortable and dignified death".

CLAHRC West Midlands is proud to be contributing to this research. Sarah Damery and colleagues from our Chronic Diseases theme are looking to improve safety culture in care homes by developing and evaluating a training and improvement initiative in 35 care homes. You can find out more information and read the protocol <u>here</u>.

#### **Health and Social Care Summit**

In June this year, Simon Stevens, Chief of NHS England, stated: "As the NHS approaches its 70th Birthday, we are now embarked on the biggest national move to integrating care of any major western country. For patients this means better joined up services in place of what has often been a fragmented system that passes people from pillar to post."

On 29 June, CLAHRC WM's Paul Bird, Professor Aileen Clarke (Prevention and Detection Theme) and Professor Guy Daly (Coventry University) co-hosted a Health and Social Care Summit at the University of Warwick. The Summit brought together delegates from across health and social care, including the leaders of Coventry and Warwickshire councils, along with a range of national, regional and local academics and organisations committed to improving the integration of health and social care. In addition to listing some of the serious issues that we currently face, the meeting provided some fascinating and insightful presentations on both health and social care. Coventry Older Voices provided particularly thought-provoking discussions, and delegates had the opportunity to network, and discuss challenges to integrated care and ways they can be overcome. The discussions led to thinking about future research priority areas.

This event was a great success, and it is hoped that new networks created at the event will continue to develop, alongside discussions on future research and future projects. For access to more material about the event or to the presentations please contact Paul Bird (Paul.Bird@uhb.nhs.uk).

#### **Shortlist for WMAHSN Awards**

The shortlist for the West Midlands Academic Health Science Network's **Celebration of Innovation Awards 2017** has recently been released. These awards recognise and reward innovation in healthcare from NHS organisations, academic institutions,

social enterprises, care homes, charities, and the private sector from across the West Midlands. To see the full list of nominees, please visit: <a href="https://www.ahsn.org/news/id/382">wm.ahsn.org/news/id/382</a>. The awards were presented on the evening of the 20 July, and we will bring you an update in the forthcoming News Blog.

# **NIHR Funding Opportunities**

The NIHR have released a second call for NIHR Global Health Research Groups for existing specialist academic groups who wish to expand into the field of global health. For more details, and to apply, <u>please click here</u>. Deadline for applications is **13:00 on 20 October 2017**.

Applications are also open for the Cochrane Incentive Awards, which offers small incentive payments to Cochrane Review Groups for preparing key new or updated reviews. For more details, and to apply, <u>please click here</u>. Deadline for applications is **13:00 on 1 September 2017**.

Round 6 of the NIHR Knowledge Mobilisation Research Fellowship is now open for applications. These are designed to support a balance of innovative knowledge mobilisation and research into the processes and impacts of such innovation. For more details, and to apply, <u>please click here</u>. Deadline for applications is **13:00 on 14 September 2017**.

#### NIHR Global Health Research Grants Awarded to University of Warwick

The University of Warwick is to receive more than £7 million to find better ways of delivering healthcare to some of the world's poorest people. The NIHR Global Health Research Unit on Improving Health in Slums has awarded £5.7 million (with match funding of £718k from the University) for research in to improving the health of people living in slums in Asia and Africa, and is being lead by CLAHRC WM Director Richard Lilford. Additionally, the NIHR Global Health Research Unit on Psychosis Outcomes has awarded £1.5 million for work with psychosis sufferers in India, led by Prof Swaran Singh.

For more details, please see this press release.

# Save the Date - CLAHRC Cardiometabolic Research Day

CLAHRC East Midlands and CLAHRC Oxford are holding the first CLAHRC Cardiometabolic Research Day on Tuesday 24 October 2017 at the University of Leicester. The day aims to bring together researchers, clinicians, students and other colleagues from all 13 CLAHRCs to discuss challenges and opportunities in the field of cardiometabolic research.

If you are a CLAHRC WM researcher involved in cardiometabolic research and

would like to take part in this free event, please contact Paul Bird (Paul.Bird@uhb.nhs.uk) as there is a limit of six places per CLAHRC.

# **Survey for NHS Decision-Makers**

Researchers from CLAHRC North Thames are looking at evidence use in decision-making in the NHS, and the preferences of decision-makers for different types of evidence. They have created a short, 15 minute survey, which they are inviting NHS decision-makers and those involved in the decision-making process to complete. For more information, please click here. To take part in the study, click here. No personal details will be asked for, and published reports will not contain any personal details. If you have any queries, please contact Nicholas Swart (n.swart@ucl.ac.uk).

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# Profile

#### Anne-Marie Brennan



Dr Anne-Marie Brennan is the new Head of Programme Delivery for CLAHRC WM, following Nathalie Maillard's departure for a new role. Anne-Marie has a background in both academic research and research management and has worked clinically as a midwife. Her initial degree was in English Language and Literature from Oxford in 1989; after this she trained as a direct-entry midwife in Winchester, qualifying in 1994. Anne-Marie worked first in Warrington and then at St Mary's in Manchester. While doing this, she studied for a

Psychology degree with the Open University and completed this in 1998. She specialised in diabetes care in pregnancy and worked on a research study in the field. A chance encounter with Professor Francis Creed at Manchester led to her studying for a PhD in the completely different field of psychological medicine. After completing this in 2002, Anne-Marie worked with Professor Gary MacFarlane at the Unit of Chronic Disease Epidemiology on a European-wide study into head and neck cancer. and on a follow-up study on the veterans of the 1991 Gulf War. Anne-Marie then focused on the administrative side of research and spent several years at Manchester as a Research Business Manager in various departments of the Medical School: her last role there was in Primary Care, where she provided the costing for Manchester's first CLAHRC.

A relocation in 2010 brought Anne-Marie to the University of Warwick where she was the manager for an FP7 project delivering healthcare training to clinical practitioners in Malawi and Tanzania; alongside this, she also worked for the Consortium for Advanced Research Training in Africa (CARTA) for a short time, then moved to the Clinical Trials Unit managing two studies, one metabolic and one orthopaedic. Anne-Marie's most recent role has been supporting the student discipline processes in the central University office, but she missed the Medical School too much and decided to return.

Anne-Marie plays the flute and is currently working through her exam grades as she never bothered with these at school. She also enjoys Irish music and plays Irish flute and, after several years of lugging round a button accordion for her son, has finally succumbed and is also learning how to play this too.

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# Selected Replies

Re: A Cluster RCT of an Internet-Based Programme to Promote Activity and Reduce Postpartum Calorie Intake in Poor Hispanic Women

The results of this study are interesting given that the "intermediate" variables show no effect (accepting your comment on the imprecision of calorie intake) but the final outcome does. Of course, this may say something about the use of pedometers to measure physical activity and (although I haven't read the paper) the method used to monitor calorie intake.

-- Celia Taylor

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# Recent Publications

Aiyegbusi OL, Kyte D, Cockwell P, Marshall T, Dutton M, Slade A, Marklew N, Price G, Verdi R, Waters J, Sharpe K, Calvert M. <u>Using Patient-Reported Outcome</u>

Measures (PROMs) to promote quality of care and safety in the management of patients with Advanced Chronic Kidney disease (PRO-trACK project): a mixed-methods project protocol. *BMJ Open.* 2017; **7**(6): e016687.

Anderson L, Sharp GA, Norton RJ, Dalal H, Dean SG, Jolly K, Cowie A, Zawada A, Taylor RS. <u>Home-based versus centre-based cardiac rehabilitation</u>. *Cochrance Database Sys Rev.* 2017; **6**: CD007130.

Damery S, Combes G. Evaluating the predictive strength of the LACE index in identifying patients at high risk of hospital readmission following an inpatient episode: a retrospective cohort study. *BMJ Open.* 2017; **7**:e016921.

Freeman K, Taylor-Phillips S, Connock M, Court R, Tsertsvadze A, Shyangdan D, Auguste P, Mistry H, Arasaradnam R, Sutcliffe P, Clarke A. <u>Test accuracy of drug and antibody assays for predicting response to antitumour necrosis factor treatment in Crohn's disease: a systematic review and meta-analysis</u>. *BMJ Open.* 2017; **7**(6): e014581.

Prior JA, Ranjbar H, Belcher J, Mackie SL, Helliwell T, Liddle J, Mallen CD. <u>Diagnostic delay for giant cell arteritis - a systematic review and meta-analysis</u>. *BMC Med*. 2017; **15**: 120.

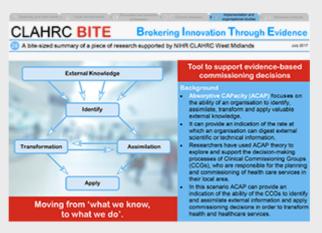
Stuart K, Adderley NJ, Marshall T, Rayman G, Sitch A, Manley S, Ghosh S, Toulis KA, Nirantharakumar K. <u>Predicting inpatient hypoglycaemia in hospitalized patients with diabetes: a retrospective analysis of 9,584 admissions with diabetes</u>. *Diabet Med.* 2017.

Taylor-Phillips S, Geppert J, Stinton C, Freeman K, Johnson S, Fraser H, Sutcliffe P, Clarke A. Comparison of a full systematic review versus rapid review approaches to assess a newborn screening test for tyrosinemia type 1. Res Synth Methods. 2017.

Twohig H, Jones G, Mackie S, Mallen C, Mitchell C. <u>Assessment of the face validity, feasibility and utility of a patient-completed questionnaire for polymyalgia rheumatica: a postal survey using the QQ-10 questionnaire. Pilot Feasibility Stud. 2017.</u>

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# CLAHRC WM BITE



**Tool to Support Evidence-Based Commissioning Decisions** 

Researchers have used Absorptive Capacity theory (which focuses on the ability of an organisation to identify, assimilate, transform and apply valuable external knowledge) to explore and support the decision-making processes of Clinical Commissioning Groups. Researchers from our Implementation and Organisational Studies theme (5) analysed interview data from 12 CCGs and found that information and/or evidence wasn't always being used effectively to inform decision-making. They developed a free tool to allow CCGs to advance their absorptive capacity,

which will enhance their ability to digest information, apply it to commissioning decisions, and transform health and healthcare services. The tool is freely available for more information, please contact either <a href="mailto:Tina.Kiefer@wbs.ac.uk">Tina.Kiefer@wbs.ac.uk</a> or <a href="mailto:Yaru.Chen@wbs.ac.uk">Yaru.Chen@wbs.ac.uk</a>.

To read the full BITE, please click here.

More information, and a link to the tool can be found online at: warwick.ac.uk/fac/soc/wbs/research/ikon/commissioning

CLAHRC BITEs (Brokering Innovation Through Evidence) are accessible bite-sized pieces of research that aim to summarise findings from our published work and make recommendations for practice for health and social staff locally and beyond. Previously published BITEs can be found here.

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