

RESEARCH AND PSYCHIATRY MAKING AN IMPACT

RESEARCH AND PSYCHIATRY - MAKING AN IMPACT

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There are numerous myths and misconceptions about psychiatry. One of my first junior doctor posts in psychiatry was at the justly renowned National Hospital for Neurology, known as "Queen's Square". I was the only psychiatry trainee in the place, vastly outnumbered by neurology trainees and consultants. I lost count of the number of times people would approach me and say words to the effect of "I don't know why a decent chap like you is going into psychiatry - none of your patients get better". It was ironic, since with the best will in the world, that statement seemed to apply more to those occupying the beds at Queen Square with diagnoses such as motor neuron disease, multiple sclerosis, Parkinson's and so on. But it was also untrue. Many of those seeing psychiatrists do get better - not overnight as in the scenarios beloved of Dr. Kildare in my youth, or House in my children's time - but if you have the patience to stick with them over weeks and sometimes months, get better they do.

But there was also a second misperception - that "psychiatry just isn't science".

That annoyed me then, and still does. What people usually mean by this is that psychiatry is not very technological - routine clinical practice does not rely as much on what the Armed Forces call "kit" - expensive machines with flashing lights, dials and expensive maintenance contracts. There is some truth in this, at least at the moment. I think the fact that psychiatry does require considerable interpersonal skills is a plus, not a minus, but what is at issue is the false equation between technology and science. Science is a way of thinking, a way of tackling questions and a good randomised controlled trial, prognostic or clinical study is just as scientific as one involving blood gas measurement or measuring cardiac volume. And there we have nothing to be ashamed of - psychiatrists were pioneers of the earliest clinical trials, and there are probably more epidemiologists working in clinical psychiatry than any other clinical discipline. I should know, I am one. Just because I don't use the latest scanning or genetic technologies doesn't mean I am not a scientist.

But hang on a minute. As an academic psychiatrist I am surrounded by people who do use the latest technology to study the mechanisms behind many mental disorders. Indeed, judging by the main journals, it is probably people in my corners of academic psychiatry who are in the minority. So it is me who is in danger of perpetuating a false distinction - that old chestnut mind versus brain. Just as geneticists, including psychiatric ones (especially psychiatric ones) study nature AND nurture, and

look with condescension on dinner party guests who try to get a conversation going by saying "so where do you stand on the nature/nuture debate?", for which the only answer is "there isn't one, you clot, it's both", so do all psychiatrists, whether interested in research or not, agree it is body AND mind.

But the well meaning but misguided interlocutor who has now been persuaded that psychiatry is as scientific as any other part of medicine, sometimes still has one trick up his or her sleeve. "OK, you are trying hard, I give you that, but you haven't really achieved very much have you? It's all terribly clever, and I grant you very interesting - but where's the meat? What have you achieved? Where is the impact?"

Well, Ladies and Gentlemen, it's here. Because we can show you the impact. In the United Kingdom every academic is subjected once every six years to a particular form of torment which used to be called the Research Assessment Exercise (RAE), but more recently was renamed the Research Excellence Framework (REF). "Excellence", along with "passionate" and "inspirational" is the new black. No doubt it will be called something else next time. And for this every person who does any research in a university is assessed on the quality of their output. One of the most important parts of this assessment is to demonstrate what is called "impact". How did your research make a difference?

We have gathered examples of what are known as the "impact statements" submitted to the last assessment exercise, known as the REF, from around our universities, and that are concerned with psychiatry, and produced by psychiatrists, usually working closely with psychologists, as we do. These are not just advertisements for what we do (although there is no problem with that either) but rigorously checked and peer reviewed documents, which have been used as part of the overall assessment of the quality of the work we do.

I will wager that anyone who takes time to have a look at these will realise just how misguided it is to claim that "psychiatry isn't scientific" or that research in psychiatry "doesn't make any difference". Try it and make up your mind. I am confident that you will enjoy the range and breadth of what we have achieved in the last few years, and will be as excited as I am as to what is still to come. Perhaps you might want even to join in. You will have the chance to make a real difference to some of the most important health problems not just in this country, but around the world. Trust me, it won't be dull.

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CANNABIS AND PSYCHOSIS – FURTHERING THE DEBATE

LED BY: DR STANLEY ZAMMIT, PROFESSOR GLYN LEWIS

UNIVERSITY	TYPE OF RESEARCH	TOPIC	IMPACT ON	THERAPY TYPE
CARDIFF	BASIC	RECREATIONAL DRUGS, CANNABIS, PSYCHOSIS	–	–

Our research has shown that approximately 15% of cases of schizophrenia in the UK could be prevented if cannabis were to be eliminated from the population.

Schizophrenia and other psychotic disorders are major worldwide causes of disease and death. Such disorders are seen as huge burdens on society due to lost productivity and the strain they exert on health services. Working out what can lead to disease, and how to prevent it, is an essential strategy used by researchers to combat health issues. However, in the case of chronic psychotic disorders, experts did not know of anything that led to the condition that could then be prevented.

Cannabis was always known to cause acute, short-term psychotic states, but there had always been insufficient evidence to support a causal relationship between cannabis and chronic psychotic disorders. For example, the 1998 UK House of Lords Select Committee Report (Cannabis: the Scientific and Medical Evidence) concluded, “... cannabis is neither poisonous nor highly addictive, and we do not believe that it can cause schizophrenia in a previously well user with no predisposition to develop the disease.” This assertion was evident throughout the country—from textbooks for psychiatrists to information given to sufferers, carers and the general public.

In 1998, Dr Stanley Zammit and his colleagues at Cardiff University examined the relationship between cannabis use and its long-term impact on mental health—in particular its influence on the risks of developing psychotic disorders such as schizophrenia. The researchers went back to work on 50,000 Swedish male conscripts that had originally been published in 1987. First they re-analysed the original data and then they collected new information from the men. Dr Zammit and colleagues found that individuals who used cannabis regularly had a substantially increased risk

of developing schizophrenia compared to those who did not use the drug. More importantly, the data were consistent with cannabis use having a causal effect on psychosis.

The findings, supported by other studies showed that around 15% of schizophrenia cases are preventable by eliminating cannabis. This landmark result has made cannabis the only clearly modifiable risk factor in the prevention of schizophrenia.

Since the research was published in 2002 and 2004, it has had a major impact across the world – transforming the tone and content of the cannabis-psychosis debate and public health policy. In the US, the White House Office of National Drug Control Policy referred to the research whilst debating the legalization of cannabis and the impact of findings by Dr Zammit and colleagues can be seen repeatedly in state-level and nationwide policy across America, and in the EU and Australia.

Meanwhile, the UK Drug Policy Commission has called for more studies into the link between cannabis and psychosis. The Commission cited Dr Zammit’s work as the single study with enough statistical weight to assess whether cannabis use precedes the onset of schizophrenia. So, while decisions regarding the legal classification of cannabis are determined not only by health outcomes, this research has helped inform and transform the debate, for the benefit of researchers and the general public alike.

UNCOVERING THE LINK BETWEEN CANNABIS AND PSYCHOSIS

LED BY: PROFESSORS TERRIE MOFFITT, AVSHALOM CASPI, PHILIP MCGUIRE, SIR ROBIN MURRAY, LOUISE ARSENEAULT & DRS PAUL MORRISON & MARTA DI FORTI

UNIVERSITY	TYPE OF RESEARCH	TOPIC	IMPACT ON	THERAPY TYPE
KING'S COLLEGE LONDON	BASIC	RECREATIONAL DRUGS, CANNABIS, PSYCHOSIS	—	—

Our research on the adverse effects of cannabis contributed to a major public debate and Government campaign to inform teenagers about the potential risks of cannabis.

Cannabis is the most widely used drug in the world, but its effect on mental health has only recently been uncovered. Research led by Professors Terrie Moffitt and Avshalom Caspi demonstrated that the earlier people start using cannabis, the more likely they are to have symptoms of psychosis as a young adult. A study of 1,000 men and women in New Zealand showed that people who had been regular cannabis users at 15 were about four times more likely to have psychotic symptoms by the time they were 26 than their abstaining peers. The research also identified genetic variations that made people more vulnerable to the harmful effects of cannabis.

Further work led by Dr Marta Di Forti showed that people who smoke a potent form of cannabis (skunk) regularly are much more likely to develop psychosis than those who use traditional cannabis resin (hash) or old-fashioned grass.

Research led by Dr Paul Morrison helped explain why, by investigating the effects of the two main constituents of cannabis: THC (delta-9-tetrahydrocannabinol), the psychoactive ingredient that produces the 'high', and CBD (cannabidiol), which seems to moderate the effect of THC. Skunk contains much more THC than hash or old-fashioned grass and virtually no CBD. Our research illustrated that an injection of pure synthetic THC can induce transient symptoms of psychosis in people who have no experience of mental health problems.

'Overall, our research in this area had a major impact on the perception of the risks of cannabis use on mental health,' says Philip McGuire, Professor of Psychiatry and Cognitive Neuroscience.

In the wake of these studies and other evidence from around the world linking cannabis use with psychosis,

the Home Secretary asked the UK Advisory Council on the Misuse of Drugs to review the legal classification of cannabis in 2007.

Professor Murray submitted written evidence to this review and Dr Morrison, spoke at a review meeting about the effects of THC and CBD.

In 2008, the ACMD reported that the majority of its members thought cannabis should remain as a class C drug, but confirmed that the drug, particularly skunk, can damage people's mental health, especially if young people start to use it an early age.

Despite the recommendation, the Government decided to tighten the law and in 2009 the Misuse of Drugs Act cannabis was amended and cannabis was re-classified from class C (considered the least harmful), to class B, making it illegal to possess cannabis, give to friends or sell it.

Following reclassification, the Department of Health launched a major TV, radio and online campaign to demonstrate the role cannabis can play in the development of mental health problems. The 'Talk to Frank' television adverts, aimed at young people, illustrated how cannabis can contribute to paranoia and damage mental health.

Although cannabis is still the most widely used illicit drug in Britain, its use has been steadily declining. The 2011/12 Crime Survey for England and Wales showed that 15.7 per cent of young people said they had used cannabis in the previous year, the lowest level since measurement began in 1996, when 26 per cent of young people said they had taken cannabis.

Additionally, our research into the effects of CBD and THC has also led to a partnership with the pharmaceutical industry to develop a new antipsychotic medication based on CBD.

IMPROVING OUTCOMES FOR SCHIZOPHRENIA PATIENTS

LED BY: PROFESSORS THOMAS BARNES, MICHAEL CRAWFORD, EILEEN JOYCE, TOM SENSKY

UNIVERSITY IMPERIAL COLLEGE LONDON	TYPE OF RESEARCH CLINICAL	TOPIC SCHIZOPHRENIA	IMPACT ON –	THERAPY TYPE PHARMACOLOGICAL, PSYCHOLOGICAL
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Research from Imperial College London has influenced the way we understand, assess and treat schizophrenia. The work has included clinical trials of pharmaceutical and psychological treatments, improved prescribing practice and changed standard practice.

Professor Thomas Barnes and his collaborators were one of the first research teams in the UK to identify the prevalence of alcohol and cannabis misuse in people with schizophrenia and to assess the value of analysing samples of patients' hair to identify substances that had been taken recently. A first-episode study, with Professor Eileen Joyce, was one of the first to suggest that cannabis use brings forward the onset of psychosis. The accumulating evidence from studies internationally that cannabis use was a risk factor for schizophrenia eventually prompted advice on cannabis use to service users, psychiatrists and other health workers.

The work went on to look at how the length of time between the onset of psychosis and beginning treatment with antipsychotic medicine affected the disease. The study found evidence supporting the notion that the longer the period of psychotic symptoms before starting medication, the greater the severity of symptoms, the poorer the response to treatment and the poorer the outcome for service users after a year of treatment. Again, such findings in studies internationally led to the development of early intervention services for psychosis in the UK.

It was not just science's understanding of the development of the illness that was increased. The team was also involved in the first UK study to evaluate clozapine in people with schizophrenia that was resistant to standard treatment. The next step was to work with Professor Tom Sensky to test how the combination of pharmacotherapy and cognitive behavioural therapy (CBT) affected persistent symptoms. This was one of the

early randomised controlled trials showing the benefits of combining this psychological intervention with pharmacological treatment for psychotic illness.

The team also characterised the side-effect of antipsychotic medication known as akathisia, which presents as a sense of inner restlessness, mental unease and restless movements. The work culminated in the Barnes Akathisia Rating Scale (BARS), which is widely used clinically and in research studies worldwide to diagnose and assess akathisia.

Since 2005 Professor Barnes has been joint-head (with Mrs Carol Paton) of the Prescribing Observatory for Mental Health (POMH-UK) which promotes and supports the safe and effective use of medications in psychiatric practice. They run national, audit-based quality improvement programmes which have helped clinicians implement evidence-based prescribing practice, such as: a reduced use of high-dose and combined antipsychotic medication; an increase in screening for side-effects in community patients on continuing antipsychotic medication; improved monitoring of patients on lithium. The group has created a commonly used 'ready reckoner' for calculating the total antipsychotic dose that individual service users are prescribed and identify high-dose prescriptions and also collaborated on the development of an information pack on lithium therapy for service users

TALKING THERAPY FOR PSYCHOSIS

LED BY: PROFESSORS PHILIPPA GARETY & ELIZABETH KUIPERS

UNIVERSITY	TYPE OF RESEARCH	TOPIC	IMPACT ON	THERAPY TYPE
KING'S COLLEGE LONDON	CLINICAL	PSYCHOSIS	–	PSYCHOLOGICAL

Our researchers pioneered the development of cognitive behavioural therapy for psychosis, now a recommended treatment for people who have schizophrenia.

For many years, medication was the only treatment option for people with psychosis. However, our researchers helped prove that a 'talking therapy' could make a real difference to people's symptoms – and were instrumental in shaping UK guidelines that now recommend cognitive behaviour therapy (CBT) for all people who have schizophrenia, alongside appropriate medication.

Professors Philippa Garety and Elizabeth Kuipers were among the psychologists who pioneered CBT for psychosis. They developed and successfully piloted a form of CBT that aims to help people with schizophrenia and schizo-affective disorder try to understand and make sense of their hallucinations and delusions, and find better ways of coping with these unpleasant experiences. Their treatment was published as a manual, Cognitive Behaviour Therapy for Psychosis, in 1995 – and they then went on to stage a major trial to test its success.

The results of the London-East Anglia Randomised Controlled Trial of CBT for Psychosis showed that the targeted therapy helped the symptoms of half the people who had one-to-one sessions over a period of nine months, on top of the treatment and care they were already receiving.

The people who benefited all had a long history of psychosis, and had persistent and medication-resistant symptoms. The effect of CBT on improving symptoms was similar to that of trials testing the effectiveness of clozapine, an antipsychotic drug often prescribed when others have failed.

Very few people dropped out of the CBT programme, and the majority said they were extremely satisfied with the treatment. What's more, people who had received

specialist CBT showed a 'significant and continuing' improvement nine months after the treatment had finished.

An economic evaluation showed that the cost of providing CBT was offset by money that would otherwise have been spent on other mental health services.

Meanwhile, research teams from elsewhere were similarly demonstrating that CBT could help to alleviate the symptoms of psychosis, and the talking treatment was first recommended by NICE in 2002. The updated 2009 NICE guideline recommended that CBT for psychosis should be offered to all people with schizophrenia for at least 16 one-to-one sessions, and NHS trusts are now required to put plans in place to implement this recommendation.

The London-East Anglia trial showed that 50 per cent of people benefited from CBT for psychosis, so the research team went on to analyse whether it was possible to predict who would respond well to CBT. They concluded the most important predictor was an individual's readiness to consider an alternative explanation for the delusions they were experiencing. Following the trial, a CBT for psychosis clinic was opened at the South London and Maudsley NHS Foundation Trust (SLaM). Referrals have continued to increase over the last decade, and the team continues to offer supervision to therapists who want to acquire specialist skills in CBT for psychosis.

Meanwhile, our researchers continue to develop different types of CBT that target specific symptoms of psychosis. For example, by testing a new version of CBT designed to challenge the power of voices that tell people to act in a harmful way.

PHARMACEUTICAL HEROIN: TREATING CHRONIC ADDICTION

LED BY: PROFESSOR JOHN STRANG & DR JAMES BELL

UNIVERSITY	TYPE OF RESEARCH	TOPIC	IMPACT ON	THERAPY TYPE
KING'S COLLEGE LONDON	CLINICAL	RECREATIONAL DRUGS, ADDICTION	—	PHARMACOLOGICAL

Our researchers showed that supervised medical heroin helps chronic heroin addicts quit the street drug and turn their back on crime, key evidence leading to the treatment being introduced in England.

Our researchers at the National Addictions Centre (NAC) led the development and evaluation of clinics where hard-to-treat addicts are prescribed pharmaceutical heroin, or diamorphine, for injection under strict supervision.

The work has contributed to mounting evidence from across Europe and North America, and supervised heroin treatment services have now been established in England, Switzerland, The Netherlands, Germany and Denmark.

Professor John Strang, and colleagues at the NAC, led the Randomised Injectable Opioid Treatment Trial (RIOTT), which demonstrated that addicts who injected diamorphine under supervision are much more likely to quit street heroin than their peers who are treated with methadone given either by injection or orally.

Methadone is widely used in heroin treatment programmes, but approximately 5 per cent of the estimated 265,000 heroin users in England (in 2014) are resistant to methadone, and they are responsible for the vast majority of drug-related criminal behaviour.

‘Helping entrenched heroin addicts get to grips with their addiction with diamorphine also cuts crime because they no longer need to break the law to fund their habit,’ says Professor Strang. A survey carried out by Ipsos MORI in 2009 showed that, overall, the public support drug treatment programmes in order to reduce criminal activities and make communities safer.

‘In RIOTT, we saw some really impressive examples of change, even within the six-month trial period,’ says Professor Strang. ‘We were able to help people who had been in and out of treatment for years, and the number of crimes they committed was dramatically reduced.’

A previous version of the treatment was available in the UK but, without supervision, the prescribed diamorphine leaked onto the black market. The NAC team worked on a new approach involving close supervision at clinics that would remain open every day of the week. They also developed a urine test that allowed RIOTT researchers to check whether participants were using heroin prescribed by the clinic or bought on the street.

The researchers ran a small pilot study which showed not only a drop in illicit heroin use and criminal activity but also enthusiasm amongst hard-to-treat addicts as a result. A pledge to develop ‘properly supervised heroin prescribing’ was included in the UK drugs strategy in 2002.

Since then, the treatment has been promoted in each successive UK government drugs strategy, with a commitment in 2008 to roll out supervised heroin treatment if the RIOTT trial reported good results. In 2012, the South London and Maudsley NHS Foundation Trust (SLaM) was awarded a three-year contract by the Department of Health to provide supervised heroin treatment in London to addicts who have failed to respond to conventional treatments such as methadone replacement. The aim is to work with SLaM works to offer the service across the capital. ‘We need to work out how to deliver the treatment efficiently over a wide geographical area to a small number of people.’ Two other mental health trusts (in Brighton and Darlington) have been awarded contracts to provide the treatment until 2015.

Although injectable treatments are more expensive to provide, they are associated with reduced levels of criminal activity. Our researchers estimate that the overall savings of providing supervised injectable treatments for chronic heroin addiction in England may be between £29 and £59 million per year.

NEW TREATMENTS FOR ANOREXIA

LED BY: PROFESSOR ULRIKE SCHMIDT & DR KATE TCHANTURIA

UNIVERSITY KING'S COLLEGE LONDON	TYPE OF RESEARCH CLINICAL	TOPIC EATING DISORDERS, ANOREXIA	IMPACT ON –	THERAPY TYPE PSYCHOLOGICAL
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Our researchers have developed new treatments for adults with anorexia and trained more than 700 eating disorder therapists worldwide in delivering the interventions.

Three new treatments for adults with anorexia nervosa are being used in specialist eating disorders services around the world. Developed by our researchers, the psychological therapies target personality traits and thinking styles that allow the symptoms of anorexia to flourish.

Our researchers have trained more than 700 therapists to use one of the three treatments in clinics, wards or research in the UK, Europe, Australia, the USA and South America.

20 per cent of people with anorexia die prematurely as a result of their illness. The development of the three new treatments was informed by research into why anorexia is so hard to treat.

Cognitive remediation therapy (CRT) for anorexia, CREST (cognitive remediation and emotional skills training) and a large part of MANTRA (Maudsley Model of Anorexia Nervosa Treatment for Adults) target people's cognitive and emotional characteristics – the way they think – rather than focusing on the content of their thoughts, or food and eating.

'We have carried out a lot of research that has shown that people with anorexia tend to be perfectionists, have obsessive compulsive traits and are very anxious,' says Professor Ulrike Schmidt.

'They concentrate on detail rather than the bigger picture and think in a rigid and inflexible way – they find it difficult to change rules they have set themselves, once they have fixed them in their brain, for example. They find it hard to multi-task and prefer to concentrate on one task at a time. They may also lack inter-personal skills, they often want to please people, so can be submissive in relationships and have difficulties saying

what they want to say. They find it difficult to recognise emotion – in themselves and in other people – and tend to be cautious about expressing and regulating emotions.'

CREST and MANTRA both include elements of CRT for anorexia, which, through a series of tasks unrelated to food, encourages people to consider the pros and cons of thinking styles.

CRT and CREST are now an integral part of the treatment package on the eating disorders ward at the South London and Maudsley NHS Foundation Trust (SLaM). On a ward, people are very unwell, physically weak and extremely unmotivated so CRT and CREST gently introduce the possibilities of modifying thinking styles and learning to manage emotions. The idea is that people are then more likely to engage in other therapies that focus on food and eating.

MANTRA is the routine treatment for people referred to the outpatient clinic at SLaM, where they meet with therapists for 20-30 weekly sessions that concentrate on thought processes, emotions, nutrition, accepting support from family members and motivation to get better.

'Many people believe that the anorexia helps them feel in control, feel safe, or not feel emotions. We have to challenge those beliefs from the start otherwise people don't want to change anything,' says Professor Schmidt.

Our researchers have produced manuals detailing MANTRA, CREST and CRT for anorexia and organise regular CRT training for clinical and research teams. 'We started CRT workshops in London in 2008 and they are very well-attended by professionals from the UK and internationally,' says Dr Kate Tchanturia, the main architect of CRT for anorexia and CREST. 'As a result, several treatment trials have started in collaboration with teams in the USA, France and The Netherlands.'

DEALING WITH THE PSYCHIATRIC SYMPTOMS OF DEMENTIA

LED BY: PROFESSOR IAN MCKEITH, NEWCASTLE DEMENTIAS AND NEURODEGENERATIVE DISEASES (DEMANDS) RESEARCH GROUP

UNIVERSITY NEWCASTLE	TYPE OF RESEARCH CLINICAL	TOPIC DEMENTIA	IMPACT ON –	THERAPY TYPE PHARMACOLOGICAL
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There are various types of dementia and the numerous symptoms include anxiety, delusions and hallucinations. Researchers at Newcastle University realised that a type of drug used for one type of dementia might have benefits for others. These drugs are now used internationally for two types of dementia that previously had no effective treatment.

Dementia is one of the greatest problems facing society today. It affects over 35 million people worldwide, including nearly five per cent of people aged over 65. Not only does it impact greatly on the quality of life of sufferers and care-givers, but it has huge financial implications.

There are a number of types of dementia which originate in different ways and have a variety of symptoms. Dementia with Lewy bodies (DLB) and Parkinson's disease dementia (PDD) make up around 20% of dementias in older people and they are characterised by persistent and disabling psychiatric symptoms. They cannot be managed using standard anti-psychotic treatments because they can cause severe, even fatal, reactions in these patients.

Memory loss is a key symptoms of dementia and researchers developed drugs to be used for Alzheimer's disease that preserve communication between brain cells by reducing the breakdown of the neurotransmitter acetylcholine. These drugs are known as cholinesterase inhibitors (CHEIs) and were found to significantly improve cognition and activities of daily living.

In the early 1990s, Newcastle researchers showed that there was a greater deficiency of acetylcholine in brain tissue of patients with DLB than those with Alzheimer's disease. The researchers realised that CHEIs might be even more beneficial in patients with dementia with Lewy bodies.

Following early feasibility studies in Newcastle, Professor McKeith led the first multi-centre trial, which demonstrated that CHEIs were indeed effective in people with dementia with Lewy bodies. The results of this study showed that patients given the CHEI rivastigmine exhibited significantly fewer psychotic symptoms such as delusion and hallucination, and were significantly faster and better scoring at computerised cognitive tests than the placebo group.

This work paved the way for similar treatment to be applied in Parkinson's disease dementia. The results of a preliminary trial by the same group of Newcastle investigators indicated that patients given rivastigmine showed significant improvement over baseline scores in terms of hallucinations, sleep disturbance and cognitive scores, and that caregiver distress was also significantly reduced.

A parallel study of the CHEI donepezil, in both DLB and PDD patients, confirmed these effects, and gave the first indication of clinical efficacy and acceptable side effects in these two populations.

CHEIs are now widely recommended for use in both dementia with Lewy bodies and Parkinson's disease dementia in the UK and throughout Europe. Since 2009, we have now been able to manage some of the most distressing symptoms of these severely debilitating diseases.

HOW TO HELP TRAUMA PATIENTS

LED BY: JONATHAN BISSON

UNIVERSITY
CARDIFF

TYPE OF RESEARCH
TRANSLATIONAL

TOPIC
TRAUMA

IMPACT ON
–

THERAPY TYPE
PSYCHOLOGICAL

After traumatic events it used to be routine to give people psychological debriefings, until work from Cardiff University showed that not only were these debriefings not helping, they might even be causing harm. These findings have changed UK and international care, benefitting many tens of thousands of patients around the world.

Traumatic events are unfortunately common. In the U.S. 70% of adults are expected to experience some type of traumatic event at least once in their lives and, of those victims, 60-80% develop post-traumatic stress disorder (PTSD). It was believed that psychological debriefing would promote emotional processing, help patients normalise their reactions and hopefully protect them from PTSD.

These debriefings became standard practice and were routinely used around the world following major traumatic events. Perceived wisdom held that a single session of intervention could help greatly. However, whilst psychological therapies have made great strides in aiding psychiatric care, we need to follow the evidence just as with pharmaceutical therapies to ensure that not only are we providing the best possible care but also that there is no chance of unintentionally making the situation worse.

The aim of psychological debriefing was sound; healthcare professionals wanted to reduce any long-term psychological damage. However, Professor Jon Bisson and his team wanted to ensure this approach was the best one for patients. First, the researchers interviewed one hundred and thirty-three adults who had suffered burns and were victims of trauma. The patients completed a questionnaire so that the team would later be able to compare how severe the burns and trauma were for the different patients so that they could establish how much of an effect the intervention had.

After the questionnaires, the patients were randomly separated into groups who either received psychological debriefing or not – a control group to be compared against. After both 3 and 13 months the patients were interviewed again. The person conducting each interview purposefully did not know whether the patients had received psychological debriefing or not, so that any preconceptions they had would not bias the results.

Despite many expectations, when the data had been analysed it turned out that the patients who received the debriefing had not recovered as well as those in the control group who had received no debriefing. These surprising results meant that not only were time and money being wasted in the use of psychological debriefing, but the treatment was possibly causing harm.

Independent teams confirmed these findings in two further studies and the work of Prof Bisson's team became a cornerstone piece of research. Post-traumatic stress disorder is still unfortunately common but this work has led to changes to healthcare guidelines being changed not just in the UK but around the world, reducing psychological harm to tens of thousands of patients.

TREATING DEPRESSION IN PEOPLE WITH CANCER

LED BY: PROFESSOR MICHAEL SHARPE

UNIVERSITY
EDINBURGH

TYPE OF RESEARCH
TRANSLATIONAL

TOPIC
DEPRESSION

IMPACT ON
STANDARDS

THERAPY TYPE
—

Some patients who have faced both cancer and depression have said that whilst recovering from cancer gives them their body back, it is only once they have also recovered from depression that they have their life back.

Medical science is getting ever better at treating cancer and there are estimates that around 2 million people in the UK are still alive after having had a cancer diagnosis. However, many of these people have not been cured, they are living with the disease and have to undergo continuing therapy. It is perhaps not surprising that many of these patients develop depression, but in many cases this was viewed by the medical community as just one of the many horrible features of cancer. It was not standard practice to consider whether they needed treatment.

Professor Michael Sharpe and colleagues at the Edinburgh Cancer Research Centre, Christie Hospital in Manchester and St Thomas' Hospital in London ran a study to see how common it is for people with different types of cancer to develop depression and then to see how much of an impact they could make by embedding checks and treatments for depression within the standard cancer care.

First the team, including Research Nurse Vanessa Strong and Dr Lucy Wall, surveyed outpatients who were attending clinics at a cancer centre in Edinburgh. The researchers discovered there were several key attributes that made it more likely that patients would be under clinically significant levels of emotional stress. The data showed these attributes, which included being older than 65 and having an active disease but not yet a cancer diagnosis, could be used as warning flags that someone would be at higher risk of depression. The team used this information to show healthcare centres that they could focus on the people who were most likely to need care.

The researchers then designed and developed a system of care to diagnose and manage depression. They trained specialist members of the cancer care team and then embedded this system in the cancer centre. In order to test how effective their system was they devised a randomised controlled trial. This meant that patients would randomly be allocated to different types of care (usual treatment or with the added specialist care) and the researchers recorded how well people fared, without knowing which patients had been given which types of care.

Two hundred patients who had major depressive disorder and a cancer prognosis of more than 6 months volunteered to take part in the trial. The results were powerful - patients who had been given the specialist care had less depression and reported significantly better quality of life than those who had usual treatment. Using a medical intervention to make a difference as great as the one seen here would normally cost many tens of thousands of pounds per patient, but with this simple change of making sure that depression was treated at the same time as the cancer it cost just over £5,000.

In 2010 the organisation that creates health guidance for the UK, the National Institute for Health and Care Excellence (NICE), used the work from Sharpe's team to change practice across the UK. Using the evidence to harness both psychiatry and oncology has meant a greater quality of life for thousands of patients and their families.

IMPROVING THE TREATMENT OF PERSONALITY DISORDER

LED BY: PROFESSORS PETER TYRER, MIKE CRAWFORD, DR. TIM WEAVER

UNIVERSITY	TYPE OF RESEARCH	TOPIC	IMPACT ON	THERAPY TYPE
IMPERIAL COLLEGE LONDON	TRANSLATIONAL	PERSONALITY DISORDERS	STANDARDS	—

Decades of research have examined the way personality disorder is perceived and managed, used evidence to change harmful government policy and create improved services for sufferers.

In 1993 expert assessments of personality disorders often yielded inefficient, unreliable diagnoses. Professor Peter Tyrer and his colleagues at Imperial College London decided to tackle the issue and following three years of work they introduced the first reliable assessment tool—a simple classification system, based on severity, that doctors could use to finally make reliably rated assessments of personality disorder. What’s more, the new system enabled the condition to be treated much more economically than before. The impact of this work is still being felt and based on this approach, the World Health Organisation is currently changing its classification of this disorder, for better understanding across the board.

The work of Tyrer and his colleagues led to new research, again at Imperial, which shed light on the impacts of personality disorder. The researchers showed that untreated personality disorder goes hand-in-hand with long-term morbidity, and that the presence of personality disorders reduces the effect of treatment for other mental health problems. With greater understanding and improved diagnoses came greater acceptance and awareness of this condition both amongst healthcare professionals and members of the public. However, the question remained as to whether or not the importance of treating personality disorder was embedded in national health care.

Eleven years ago a survey of mental health Trusts across England reported that four out of five Trusts did not provide specialist services to people with personality disorder, and one third stated that they provided ‘no service’ at all. Where specialist services were provided users reported the care was highly valued and that

it greatly helped their health. As a result of these findings and after seeing the evidence for their value, it was recommended that specialist services should be expanded. Since then, the Department of Health has set up a dedicated website on personality disorder for users and providers of mental health services. This includes a directory of specialist services for people with personality disorder and there are now over 100 such services provided throughout the UK.

The team from Imperial have also used evidence to demonstrate how a government-led programme was not only wasting money but hindering the improvement of patients in the prison system. The researchers conducted a clinical trial with 75 prisoners in the Dangerous and Severe Personality Disorder programme. Prisoners were either placed in specialist units for assessment or left on a waiting list as a control. The progress of the two groups was measured and, after one year, the results concluded that those under specialist assessment actually showed increased aggression and poorer social functioning compared to the group on the waiting list. The Dangerous and Severe Personality Disorder programme is estimated to have cost £200,000,000, however, the evidence demonstrated that its lack of patient benefit was not worth the funding. Thanks to this research the programme was closed in 2009, and the resources have since been invested into providing more focussed psychologically-informed treatment for a far larger number of personality disordered offenders.

SUPERVISED METHADONE TREATMENT SAVES LIVES

LED BY: PROFESSOR JOHN STRANG

UNIVERSITY
KING'S COLLEGE
LONDON

TYPE OF RESEARCH
TRANSLATIONAL

TOPIC
ADDICTION

IMPACT ON
—

THERAPY TYPE
PHARMACOLOGICAL

Our researchers played a pivotal role in ensuring early methadone treatment for heroin addiction is supervised, preventing an estimated 2,500 deaths in England.

Many people in treatment for heroin addiction are prescribed methadone. A single dose of the long-lasting synthetic opiate helps people through the day without cravings or withdrawal symptoms and makes it possible for them to rebuild a life that doesn't feature crime and the risk of hepatitis and HIV from shared needles.

When treatment starts, people take their daily dose as a pharmacist or addictions professional watches. Supervision continues until people are stable on methadone treatment and proven to be offheroin completely.

When methadone maintenance treatment first became commonplace in England in the late 1980s and through the 1990s, however, this was not case. As a result, the death toll from overdoses of the prescribed substitute was almost equal to the number of deaths due to heroin overdose.

'Methadone is a product that is therapeutically valuable, a product that can turn people's lives around, but the way we were delivering the treatment was doing harm, and there was great concern about the large number of deaths,' says Professor John Strang.

In 1995, Professor Strang and colleagues at the National Addiction Centre (NAC) carried out a survey of high street pharmacists in England and Wales. They found that people on methadone treatment were not being given any sort of supervision, and were left to their own devices after prescriptions were filled.

This meant methadone was being sent home with the risk of overdose, double dosing with heroin, storing the drug insecurely and potentially putting children at risk, or selling it on the black market. 'Many of the deaths from overdose were deaths of people who had not been

prescribed methadone,' says Professor Strang.

The research influenced the recommendations of a Department of Health task force report, published in 1996, suggesting supervised dosing of the recommended daily dispensing of methadone.

Three years later, the Department of Health and corresponding departments in Wales, Scotland and Northern Ireland published their 'orange guidelines' which recommended daily supervision of methadone during the first three months of treatment.

The Advisory Council on the Misuse of Drugs reiterated the recommendations in 2000. 'The key issue is supervised dosing at the beginning and during the early stages of treatment. Supervision should only stop when the clinicians involved are certain that an individual is taking the methadone properly and safely. Supervision guarantees that the methadone is being taken as directed by the person for whom it has been prescribed. When you are sure someone is well, compliant and really stable, you can taper and then eventually stop the supervision,' says Professor Strang. Supervised dosing progressively became routine. A decade after the first survey, our researchers at the NAC surveyed high street pharmacists again: they found that 36 per cent of all methadone prescriptions were supervised, and many of the remaining prescriptions would have been for people who were past the early stages of treatment.

Professor Strang and colleagues calculated that the introduction of supervision saved an estimated 2,500 lives in England between 2001 and 2008.

He adds, 'the considered judgement made by policy-makers in the 1990s to introduce supervised treatment has proved itself to be the right judgement call. As a result, we now have much safer methadone treatment programmes.'

SUPPORTING VICTIMS OF DOMESTIC VIOLENCE

LED BY: PROFESSOR LOUISE HOWARD

UNIVERSITY KING'S COLLEGE LONDON	TYPE OF RESEARCH TRANSLATIONAL	TOPIC DOMESTIC VIOLENCE	IMPACT ON STANDARDS	THERAPY TYPE –
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Our researchers developed specialist training materials to enable mental health professionals to help victims of domestic violence.

NHS professionals need to be trained to properly to support someone with mental health problems who is a victim of domestic violence – it's not just about asking if someone is experiencing abuse at home, it's knowing how to ask and then knowing how to help.

Our research has shown that up to two thirds of women who use mental health services have experienced domestic violence at some point in their adult lives, yet mental health professionals are unaware of the majority of these experiences.

'Our research showed that mental health professionals often don't discuss experiences of violence with service users,' Professor Howard says. 'We found that staff are reluctant to ask because they lack expertise and confidence. If people do say they are the victims of violence at home, professionals are not sure what to do with that information. Staff uncover less than 30 per cent of service users' experiences.'

Training is therefore vital to help professionals know how to 'enquire safely', offer support themselves, or liaise with an organisation that specialises in helping victims of domestic violence.

'Enquiry may have adverse effects, particularly if the perpetrator finds out about the disclosure. Enquiry is only effective if professionals can ask safely, offer interventions and / or refer people on,' she says. 'It's very important to build a close relationship with local organisations in the domestic violence sector.'

Training materials for health professionals were originally developed under the auspices of the LARA (Linking Abuse and Recovery through Advocacy) study and successfully piloted with staff at the South London and Maudsley NHS Foundation Trust within community mental health teams.

Professor Howard is currently using her research findings and the LARA training manual to adapt an existing online course by the Royal College of General Practitioners (RCGP) on violence against women and children to make it more pertinent for mental health professionals.

The creation of the RCGP's web-based training for GPs was financially supported by the Department of Health after the NHS Taskforce on Violence Against Women and Girls stressed the importance of training.

Professor Howard was also commissioned by the Royal College of Psychiatrists (RCPsych) to write a book, Domestic Violence and Mental Health, based on the LARA manual, and has contributed to the development of the RCPsych's core curriculum for undergraduate psychiatry which specifies that all medical students should be taught about the link between domestic violence and mental health problems, and similar recommendations in the Chief Medical Officer's report on mental health for GP trainees.

'Our research indicates that domestic violence can damage mental health but also that mental health problems render a woman more vulnerable to domestic violence,' she says. 'The medication, the illness itself, living conditions or co-occurring substance misuse can make people more vulnerable. We have also shown that when domestic violence is experienced in pregnancy, not only is the woman at increased risk of mental health problems such as depression, anxiety, or post-traumatic stress disorder, but also her child is at risk of developing behavioural problems by age three.'

Professor Howard has written continuing professional development papers about domestic violence for both psychiatrists and nurses and her work was cited in 2011 best practice guidance from the Department of Health about commissioning services for women and children who experience violence or abuse, and in the Annual Report of the Chief Medical Officer 2013 which focused on mental health.

FAMILY THERAPY FOR ADOLESCENTS WITH ANOREXIA

LED BY: PROFESSOR IVAN EISLER

UNIVERSITY KING'S COLLEGE LONDON	TYPE OF RESEARCH TRANSLATIONAL	TOPIC EATING DISORDERS, ANOREXIA	IMPACT ON –	THERAPY TYPE PSYCHOLOGICAL
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Our researchers pioneered the use of family therapy for anorexia, an intervention that is now recommended across the UK and around the world.

Anorexia nervosa is one of the leading causes of mental health related deaths in the UK and affects approximately 1 in 150 teenage girls in the UK. 40–50 per cent are treated as inpatients for an average four to five months. While this is effective in the short term, relapse rates are high.

Developed by our researchers, and pioneered by them at the South London and Maudsley NHS Foundation Trust (SLaM), family therapy is now the key component of specialist services for teenagers across the UK and in many other parts of the world. 'The aim of the therapy is first and foremost to engage family members as a key resource to help young people fight the illness and regain a healthy weight,' says Professor Ivan Eisler. 'It's not treatment of the family,' he says, 'it's treatment with the family and that's an important distinction. Families can become organised around the illness, so it's about breaking that cycle within a household. Education and information is part of it, but the key thing is helping parents help their child – over a period of nine to 12 months, we meet with them perhaps 20 times to give them practical strategies and help them do what initially seems to them to be impossible. They may come weekly or even twice weekly, then as they begin to get on top of the problem we meet less frequently.'

He and other eating disorders specialists at the IoPPN first trialled family therapy for young people with anorexia nervosa in the 1980s: the results of that original trial showed family therapy to be effective for recently diagnosed teenagers still living at home.

This success led to the development of specialist child and adolescent services at SLaM and added to the body of evidence that informed NICE guidelines. Clinical

guidelines in countries including the USA, Australia and New Zealand recommend this style of family therapy, which is known as the 'Maudsley Family Therapy Approach', 'Maudsley Family Therapy' or the 'Maudsley Model'.

Professor Eisler and his colleagues have further refined family therapy to help young people with an eating disorder. Since the 1990s, the team has been developing 'multi-family therapy' and young people referred to SLaM's specialist service nowadays may be offered therapy with their family by themselves or with 5-7 other families who find themselves in a similar situation. Family therapy for anorexia at SLaM has improved recovery rates, and reduced the need for hospitalisation by 50% or more. The specialist service has been used as a template for anorexia services for adolescents around the world, and research has shown that this type of support is better for the individual teenager and more cost-effective.

Over the years, Professor Eisler and his expert colleagues have trained many professionals in eating disorder focused family therapy, both in the UK and abroad. They run London-based training in single and multi-family therapy, but are also invited to train specialist teams 'on-site' all over the world.

PROTECTING THE WELLBEING OF UK ARMED FORCES

LED BY: PROFESSORS SIMON WESSELY & ROBERTO RONA

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UNIVERSITY	TYPE OF RESEARCH	TOPIC	IMPACT ON	THERAPY TYPE
KING'S COLLEGE LONDON	TRANSLATIONAL	PTSD	–	–

Our research into the mental health consequences of deployment helped secure a pay increase for members of the UK's armed forces and influenced a top-level military decision not to extend the length of operational tours.

The UK military's Harmony Guidelines stipulate the duration of tours of duty. They differ for each of the armed services, and are designed to safeguard against excessive deployments and overstretch.

For the army, the guidelines state that a tour should last for six months and be followed by a 24-month break. Therefore, if the guideline is followed, a unit should not be deployed for more than 12 months within a three-year period.

Research led by Professor Roberto Rona at King's Centre for Military Health Research (KCMHR), showed that when servicemen and women had been deployed for more than 13 months within three years, they were more likely to report mental ill health as well as symptoms of physical ill health and problems at home.

Unforeseen increases in the length of a tour were especially detrimental: if the tour of duty was longer than anticipated, servicemen and women were much more likely to report symptoms of post-traumatic stress disorder (PTSD) afterwards.

The number of tours, however, made no difference to people's psychological wellbeing. 'The length of each tour and the "down-time" in between was more important than the actual number of deployments,' says Professor Sir Simon Wessely, co-director of KCMHR.

'Our research highlighted the importance of adherence to the Harmony Guidelines covering tour length,' he says. 'The guidelines weren't often broken, but if they were, there was an effect on people's mental health.'

The research team also showed that whilst 'Regulars' were not at increased risk of mental health problems

following deployment, the 'Reserve' personnel were. This led to a specific programme of mental health support within the NHS for Reserves.

Our research was cited in the 2008 Armed Forces' Pay Review Body report that recommended a one per cent increase to service wages. The risk of developing mental health problems – particularly when the Harmony Guidelines are breached – was one of the reasons for the increase.

In 2011, the UK Armed Forces were asked to review their policy on tour length, partly for financial reasons. The Chief of the Defence Staff and Chief of the General Staff set up a committee to consider proposals for increasing tour length from six to nine months.

'We gave evidence to the committee, as our work was the only source of UK data on the impact of tour length on mental health. We later learned that one reason the committee did not recommend a change of policy on tour length was because it accepted our views that increasing the tour length might have a negative impact on mental health,' says Professor Wessely.

KCMHR figures suggest that, for each year of continued operations in Iraq and Afghanistan, adherence to the Harmony Guidelines prevents an additional 7.1 per cent of common mental illnesses and post-traumatic stress disorder, and 7.7 per cent of alcohol problems.

The research was carried out as part of an ongoing 'Health and Wellbeing of UK Armed Forces' study at KCMHR, which has been running since 2003, and includes approximately 16,000 service men and women.

TRAINING FOR CARERS OF PEOPLE WITH ANOREXIA

LED BY: PROFESSORS JANET TREASURE & ULRIKE SCHMIDT

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UNIVERSITY	TYPE OF RESEARCH	TOPIC	IMPACT ON	THERAPY TYPE
KING'S COLLEGE LONDON	TRANSLATIONAL	EATING DISORDERS, ANOREXIA	STANDARDS	–

Our researchers designed training to help parents and other carers better support someone who has anorexia and speed their recovery.

The 'New Maudsley Method' involves training to help parents and other family members better support someone who has anorexia and speed their recovery. Designed by our researchers, it is now available across England through workshops, and film and book resources.

'Anorexia can provoke an intense emotional response from family members,' says Professor Janet Treasure from our Section on Eating Disorders. 'Watching someone you love starve themselves can be frightening and extremely stressful. Parents and other carers don't really know what the illness is and are often uncertain about their own role. They often have no idea how to help, or how to react to, or manage, problems that arise. The skills parents and other carers need at home are similar to those needed by professionals working on specialised units.'

The New Maudsley Method – also known as Maudsley Collaborative Care skills training – helps family members learn techniques that can help facilitate weight gain, re-establish healthy eating, deal with crises and conflicts at home, and assess risk.

Family members are given information about anorexia and also learn to cope with, and reduce, their own anxiety. This in turn can help the person who has anorexia. Professor Treasure's research has shown that stress at home, and particularly anxiety, can inhibit recovery and even encourage the eating disorder to thrive.

'We explain to carers what is happening and give them some motivational interviewing and communication skills to help them become for adept at managing the symptoms' says Professor Treasure, 'We aim to give them the skills and knowledge they need to be a coach, to help the person with an eating disorder break free from the traps that block recovery.'

A large proportion of people who have anorexia – mostly women – first become unwell during their teenage years and early 20s, when many of them are still living at home with their parents. The New Maudsley Method was developed after a series of research projects that sought to find out about the experience of living with and supporting someone who has anorexia, and then examined how different caring styles had an impact on the symptoms of the eating disorder.

The research team also discovered that many parents were depressed and anxious, felt under-supported and wanted to know about the best way of helping at home.

All the elements of the New Maudsley Method have been tested in subsequent research studies and our researchers continue to explore different ways of delivering and enhancing the training. For example, the ECHO study (Expert Carers Helping Others) is assessing the success of telephone coaching for parents of young people who have recently become unwell, offered by other, more 'experienced' parents who have been trained to offer support.

Our researchers have helped Beat (the eating disorders charity) develop a course of eight workshops run by trained volunteers that teaches family members how to become 'expert change coaches'. A series of films made by and featuring our researchers illustrate how to deal with common problems at home and explain how family members' reactions can enhance or reduce symptoms of anorexia.

Workshops for family members are now an integral part of the clinical services offered by the South London and Maudsley NHS Foundation Trust. Staff on the eating disorders ward organise four half-day sessions for patients' parents and family members. People seen in the outpatient clinic are routinely offered the chance to attend eight two- hour training sessions.

TIME TO CHANGE: EVIDENCE FOR ANTI-STIGMA CAMPAIGNS

LED BY: DR. CLAIRE HENDERSON & PROFESSORS GRAHAM THORNICROFT & DIANA ROSE

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UNIVERSITY	TYPE OF RESEARCH	TOPIC	IMPACT ON	THERAPY TYPE
KING'S COLLEGE LONDON	TRANSLATIONAL	STIGMA	STANDARDS	–

Our research has informed and evaluated England's national anti-stigma campaign Time to Change, which is clearly showing a reduction in stigma and discrimination towards people with mental illness.

People with mental health problems experience discrimination and prejudice from employers, public servants, families, friends and strangers alike. Our research has shown that people with mental health problems are treated unfairly in almost all areas of their lives because of people's misconceptions, ignorance and fear – and that stigmatising attitudes and discriminatory behaviour is common in all countries around the world.

But in England, people are now reporting less discrimination than previously. Public attitudes towards mental health have improved since the start of Time to Change, a national programme launched in 2007 to tackle stigma and prejudice surrounding mental ill health. A team led by Professor Graham Thornicroft and Dr Claire Henderson have been involved in evaluating the programme and have shown that it is beginning to make a difference.

In the first annual Viewpoint survey in 2008, 91 per cent of people with mental health problems said they had experienced discrimination on at least one occasion in the last 12 months. By 2013, the survey showed significant reductions in those with mental health conditions reporting discrimination within several life areas, including their social life and securing a job.

The survey uses the Discrimination and Stigma Scale (DISC). The purpose-built questionnaire was developed and validated by our researchers. It was later adapted for New Zealand's anti-stigma campaign, Like Minds Like Mine.

Our researchers have produced and tested a number of other research tools to evaluate Time to Change, including the Mental Health Knowledge Schedule

(MAKS) and the Reported and Intended Behaviour Scale (RIBS). Both are now included in the Attitudes to Mental Illness Survey, commissioned by the Department of Health to track changes over time.

Thousands of people with experience of mental health problems have been involved with activities organised by Time to Change. Our research has informed these activities, by building on the evidence demonstrating both the need for Time to Change and the best way to change discriminatory attitudes and behaviour.

'For example, our work showed that one of the most effective ways to reduce stigma is through direct personal contact with someone who has a mental illness,' says Professor Thornicroft. 'Direct contact with individuals means people can learn the truth – that people with mental illness are just like everyone else.'

Thus one of the main planks of Time to Change is activities bringing together people with and without experiences of mental illness. In February 2011, the Government committed to support and work actively with Time to Change in its mental health strategy with the aim that fewer people will experience discrimination and stigma. The Government uses the Viewpoint and the Attitudes to Mental Illness surveys to monitor progress towards that goal.

Our researchers have also shared their evaluation methods with organisations working on anti-stigma campaigns around the world: the Opening Minds campaign in Canada, Time to Change Cymru in Wales, Samen Sterk tegen Stigma in The Netherlands, En Af Os in Denmark and Hjärnkoll in Sweden.

FAMILY INTERVENTION FOR PSYCHOSIS

LED BY: PROFESSOR ELIZABETH KUIPERS

UNIVERSITY
KING'S COLLEGE
LONDON

TYPE OF RESEARCH
TRANSLATIONAL

TOPIC
PSYCHOSIS

IMPACT ON
STANDARDS

THERAPY TYPE
PSYCHOLOGICAL

Our researchers ran the first ever trial of family intervention for schizophrenia in the UK – now a recommended treatment for people with psychosis in the UK.

'Family intervention' helps people who have a diagnosis of schizophrenia stay well – and can also make a difference to the wellbeing of their relatives.

Professor Elizabeth Kuipers and colleagues have helped prove this to be the case and the National Institute for Health and Care Excellence (NICE) recommends at least 10 sessions of family intervention for people with schizophrenia who are in contact with their families.

Professor Kuipers' research over the past three decades has shown that people with schizophrenia who have family intervention are less likely to relapse and are less likely to be admitted to hospital.

'During family intervention sessions, the person who has schizophrenia is encouraged to talk to their family and explain what sort of support is helpful – and what makes things worse,' says Professor Kuipers. She led the first ever trial of family intervention for schizophrenia in the UK, the results of which were published in 1982.

'Family intervention can improve relationships within the household because the therapists who lead the sessions encourage family members to listen to each other and openly discuss problems and negotiate potential solutions together,' she says.

Family therapists make sure relatives have all the information they need about schizophrenia so they can better understand the symptoms that can influence someone's behaviour. For example, people who have been given a diagnosis of schizophrenia may sometimes talk to themselves: this may be because they are responding to voices they are hearing.

'Supporting someone who has schizophrenia can be a stressful job and family members understandably

feel anxious and worried. They can also feel ashamed, isolated and rejected because of the stigma associated with mental illness. Family therapists can help them realise that the emotional responses they have are normal,' says Professor Kuipers. 'Family intervention helps families begin to move from feeling exhausted and defeated to feeling that things can improve.'

The 1982 results, and the results of three other studies carried out by our researchers, were included in the evidence used to inform 2009 and 2014 NICE treatment guidelines about schizophrenia.

A manual detailing how to deliver family intervention for psychosis was published in 1992 and updated in 2002. Giving information to relatives is a key part of family intervention for psychosis. Since 2010, Professor Kuipers has led the development of mentalhealthcare.org.uk, a website that contains information about psychosis created primarily for family members. In 2012, there were more than 230,000 visitors to the site. Professor Kuipers is also the co-author of a book for family members of people who have a diagnosis of schizophrenia and other serious mental health problems – *Living with Psychosis. Living with Mental Illness*, a book for relatives and friends.

REDUCING RISKY BEHAVIOUR IN RETURNING TROOPS

LED BY: PROFESSORS NICOLA FEAR & NEIL GREENBERG

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UNIVERSITY	TYPE OF RESEARCH	TOPIC	IMPACT ON	THERAPY TYPE
KING'S COLLEGE LONDON	TRANSLATIONAL	PSYCHOSIS	–	–

Our research has informed post-deployment interventions for service personnel in order to reduce risky driving behaviour and alcohol use.

Armed Forces personnel are twice as likely to die on the road as civilians, and around 1.75 times more likely to report alcohol misuse.

Our research has led to the development of specific post-deployment interventions for service personnel in order to mitigate the impact of deployment on driving behaviour and alcohol use. The interventions have been provided to up to 20,000 personnel returning from deployment.

A third of the British troops who died in 2005 were killed in road traffic accidents. Our researchers at the King's Centre for Military Health Research (KCMHR) identified some of the potential reasons behind this disproportionately high number of accidental deaths on the road – and then advised on the content of The Grim Reaper, a hard-hitting road safety video. The six-minute film has been shown to all UK military personnel returning home from tours of duty in Iraq and Afghanistan since 2007. In 2013, only 17 per cent of service personnel who died were killed in road traffic accidents.

KCMHR research found that, between 2004 and 2006, 19 per cent of regular personnel serving in the Royal Navy, Army and Royal Air Force and were not wearing seat belts, were speeding and taking risks on the road.

Younger men, those who had seen combat or served in the Army, were most likely to drive in a perilous fashion.

'We also found that the more traumatic events people had witnessed in theatre – for example, if they had come under fire or mortar attack, or if they had experienced a landmine strike – the more likely they were to take risks when driving. It was as if people felt they were indestructible because they had been through so much yet had survived,' says Professor Nicola Fear, who led the research.

Our researchers worked with the British Army to help formulate the storyline for The Grim Reaper's. 'Drive carefully – you're tough but you're not invincible' is the final message seen after the audience witnesses the death of Chris – just back from Iraq – in a car crash.

The Grim Reaper is now shown to all troops as part of the post-deployment briefing given during decompression – 36 hours spent in Cyprus that help personnel physically and mentally unwind before returning to family and friends. The briefing includes information designed to help people adjust to civilian life.

Since the film's introduction in 2007, not only has the number of deaths in road traffic accidents fallen, but our research has also shown that fewer servicemen and women say they are taking risks on the road. KCMHR research found that, between 2007 and 2009, 13.6 per cent of service personnel reported speeding or driving without a seat belt.

To target alcohol misuse, our researchers led a trial of the post-deployment mental health resilience programme Battlemind during decompression. Developed in the USA, the training encourages discussion about settling back into home life and potential difficulties. Led by Professor Neil Greenberg, the trial involved nearly 2,500 UK troops back from Afghanistan going through decompression.

In the USA, troops who participated in Battlemind training were less likely to develop post-traumatic stress disorder back at home. In the UK trial, Battlemind did not have an impact on preventing mental health problems, but it did result in personnel being less likely to be binge drink four to eight months later. As a result, the alcohol related section of Battlemind was incorporated into post-deployment briefing.

EARLY INTERVENTION SERVICES FOR PSYCHOSIS

LED BY: PROFESSORS TOM CRAIG, PHILIPPA GARETY & PHILIP MCGUIRE

UNIVERSITY	TYPE OF RESEARCH	TOPIC	IMPACT ON	THERAPY TYPE
KING'S COLLEGE LONDON	TRANSLATIONAL	PSYCHOSIS	–	–

Our researchers helped prove the efficacy and cost-effectiveness of early intervention services for psychosis, which have now been widely developed across England.

Early intervention services that support people who are experiencing the symptoms of psychosis for the first time are now available all over England. But these specialist services have not always been commonplace. Our researchers helped prove their efficacy, demonstrated their cost-effectiveness, and were instrumental in setting the original Government policy that enabled their widespread development.

Early intervention services aim to give young people and their families comprehensive help, treatment and support when they first become unwell and during the following few years – including information about cognitive behaviour therapy, family therapy and medication.

The pioneering Lambeth Early Onset Team (LEO) was one of the first services of its kind. It was launched in 2000 as part of a research project to assess a specialist service geared towards supporting young people experiencing their first episode of psychosis. LEO was open for extended hours, seven days a week, and aimed to meet all the needs of its clients and their families under one roof. The support on offer was specially adapted for young people and the team also advised about accommodation, benefits, employment and education. The results of the LEO randomised controlled trial, led by Professor Tom Craig showed that young people referred to LEO had a better prognosis than those treated by their local community mental health team (CMHT). After 18 months, people referred to LEO were more likely to have returned to work or study than those who were offered conventional support from a CMHT.

People supported by LEO were also more likely to have maintained or rebuilt good relationships with their families and friends, and more likely to be taking

medication regularly. They were less likely to be in hospital and more likely to be in contact with mental health professionals.

An analysis by Professor Paul McCrone and colleagues at our Centre for the Economics of Mental and Physical Health showed that the overall costs of LEO was lower than the costs of standard CMHT care, mainly as a result of fewer admissions to hospital.

The LEO trial added to mounting evidence that early intervention for psychosis works. At the end of the trial, LEO became a mainstream service run by the South London and Maudsley NHS Foundation Trust.

The creation of LEO followed a Government commitment to set up early intervention for psychosis services, first made in 1999 – a reflection of the campaign from charities and other voluntary organisations for better services for young people experiencing the symptoms of psychosis.

In 1999, there were two early intervention teams in England, caring for about 80 young people. Between July and September 2012, more than 21,000 people were treated by early intervention teams operating throughout the country.

Early intervention teams are usually made up of a range of professionals, including psychiatrists, psychologists, mental health nurses and social workers. Some also include vocational workers or employment specialists.

The LEO trial is cited in the 2009 NICE guideline on schizophrenia, which recommends early intervention services be offered to any person who is experiencing a first episode of psychosis.

DIAGNOSING AND TREATING DEPRESSION IN PALLIATIVE CARE

LED BY: PROFESSORS MATTHEW HOTOPF & IRENE HIGGINSON

UNIVERSITY	TYPE OF RESEARCH	TOPIC	IMPACT ON STANDARDS	THERAPY TYPE
KING'S COLLEGE LONDON	TRANSLATIONAL	DEPRESSION		—

Our researchers produced the first ever clinical guidelines to help professionals across Europe to recognise and treat depression in palliative care.

About 470,000 people die every year in England and, on average, 355,000 of them need palliative care (help and support to live well and with dignity until their death). Almost one fifth of people receiving palliative care also experience depression which can exacerbate the symptoms of life-threatening, incurable conditions. Our researchers, in collaboration with the Cicely Saunders Institute at King's, have produced the first ever clinical guideline to help palliative care professionals recognise depression and organise appropriate treatment – not just in the UK, but across Europe.

The guideline – The management of depression in palliative care – was developed as part of the European Palliative Care Research Collaboration (2006-10) with the support of the European Commission.

'The guideline enables clinicians to access and implement evidence-based knowledge quickly and easily,' says Professor Matthew Hotopf who worked collaboratively with Professor Irene Higginson, Director of the Cicely Saunders Institute.

Depression can increase people's distress and decrease their quality of life. Our research has shown that people who experience depression while they are receiving palliative care are more likely to have pain and more likely to wish for a speedy death.

Based upon the best available evidence and expert opinion, the guideline makes recommendations about how to screen for, diagnose and assess depression, and gives guidance on treatment, including advice about the choice of talking therapy and antidepressant. Our research has shown that antidepressants are effective in these circumstances.

'Palliative care was originally for people with advanced cancer, but has become increasingly available to people with a diagnosis of other conditions and diseases that won't be cured – like multiple sclerosis and motor neurone disease,' says Professor Hotopf.

'Good palliative care and support can help prevent depression, but it is inevitable that some people who are at the end of their life will become depressed. They need appropriate support and treatment to make sure they have the best possible quality of life, and our guidelines enable palliative care professionals to give this.'

The guideline is available in German, French, Italian and Norwegian as well as English, and there is a summary for patients in the same five languages.

REDUCING THE USE OF ANTIPSYCHOTICS IN DEMENTIA

LED BY: PROFESSOR CLIVE BALLARD

UNIVERSITY

KING'S COLLEGE
LONDON

TYPE OF RESEARCH

TRANSLATIONAL

TOPIC

DEMENTIA

IMPACT ON

STANDARDS

THERAPY TYPE

PHARMACOLOGICAL

Our research showing that prescribing antipsychotics with dementia often do more harm than good informed campaign to dramatically reduce prescription rates.

Our research showed that antipsychotic drugs prescribed to control behavioural and psychological symptoms in dementia (BPSD) were largely ineffective, caused serious physical side effects, increased the risk of stroke and premature death, and potentially made the symptoms of dementia worse. Our work informed a successful campaign to change prescribing practice, and between 2008 and 2011, there was a 52 per cent reduction in the number of prescriptions for antipsychotics for people with dementia in England.

The team, led by Professor Clive Ballard in our Wolfson Centre for Age-related Diseases, has since produced guidance for health professionals about how to support people with dementia when they become agitated or aggressive, experience delusions and hallucinations, or start to wander – without using medication. The majority of people who have dementia experience these behavioural and psychological symptoms (BPSD), particularly if they live in care homes.

‘Antipsychotics had been used since the late 1950s to sedate people experiencing BPSD’, says Professor Ballard, ‘but no one ever questioned whether they were doing any harm.’

He first discovered that antipsychotics might be detrimental to older people, when working in Newcastle on a study about how BPSD affects quality of life. ‘So we then started looking more systematically at how much these drugs benefit or harm people,’ he said.

After joining King’s in 2003 Professor Ballard and his team continued to investigate antipsychotic drugs. A number of trials showed that antipsychotics prescribed to control BPSD were largely ineffective, and did considerable harm, causing serious physical side effects, increasing the risk of stroke and premature death, and

potentially making the symptoms of dementia worse.

These findings were considered by an All Party Parliamentary Group inquiry into the prescription of antipsychotic drugs to people with dementia living in care homes. Their 2008 report recommended that the National Dementia Strategy for England include an action plan to reduce the number of prescriptions for antipsychotics, and that care home staff should be trained to support people with BPSD without using medication. The 2009 Dementia Strategy contained a pledge from the government to do this.

A further report by Professor Sube Banerjee concluded that two-thirds of antipsychotic prescriptions for dementia were inappropriate. NICE now recommends not using medication to manage BPSD unless people are severely agitated.

In collaboration with researchers in Oxford and Newcastle, our research showed that the use of antipsychotic in care homes could be reduced dramatically if staff were trained to support residents by working with them individually, encouraging hobbies, activities and interests suitable for their background and abilities, and helping them to form relationships with other people. Developed with the support of the Alzheimer’s Society, the specialist training for staff in care homes is called FITS (Focused Intervention Training and Support).

The charity funded a large national trial delivering FITS to staff working at 106 care homes, led by the University of Worcester, which showed a 30 per cent reduction in the use of antipsychotic medication, and that residents in homes with trained staff were more alert, active and communicative.

FITS is now one of several training schemes available for care home staff. ‘All have shown that a few sessions in the classroom won’t work: the key is to work alongside care home staff for six to nine months to embed changes in practice,’ says Professor Ballard.

STOPPING SUICIDE AND SELF-HARM: CHANGING PAINKILLERS ON OUR SHELVES

LED BY: PROFESSOR KEITH HAWTON

UNIVERSITY
OXFORD

TYPE OF RESEARCH
TRANSLATIONAL

TOPIC
SUICIDE, SELF-HARM

IMPACT ON
STANDARDS

THERAPY TYPE
PHARMACOLOGICAL

Over one million people die by suicide each year, and in the UK it is the leading cause of death for men under the age of 35. Researchers discovered that hundreds of lives could be saved by simply changing the size of packs and swapping from one painkiller to another.

Suicide is so prevalent that even small changes can have profound effects, as Professor Keith Hawton and his team from the University of Oxford's Centre for Suicide Research have shown. First, in a major study published in 1997, the scientists monitored self-harm and suicide over an 11 year period. They showed that by 1995 paracetamol was used in almost half of all overdoses - it was easily available and could be used in impulsive suicides.

The researchers spotted that deaths due to paracetamol overdose were lower in France where pack sizes were smaller. The team recommended reducing pack sizes which led to legislation reducing the maximum pack size of over-the-counter sales from 100 tablets to 32; with a limit of one pack per sale. Even tighter controls were applied to non-pharmacy outlets. This has led not only to hundreds fewer deliberate deaths but also fewer liver transplants and accidental deaths due to paracetamol poisoning. Other countries have followed suit and all reduced paracetamol pack sizes as a result.

It is not just the size of the pack that has been under scrutiny though, it is also the type of drug. Co-proxamol is a combination of an opiate dextropropoxyphene and paracetamol. It is a prescription-only painkiller that was commonly prescribed in the 1980s and early 1990s. Professor Hawton and his colleagues discovered that co-proxamol was the most commonly used drug for suicide in England and Wales, accounting for 18% of fatalities. They also found that overdoses involving co-proxamol were 28 times more likely to lead to death than those involving paracetamol. The research was published in

the British Medical Journal in 2003 and prompted the Medicines and Healthcare Products Regulatory Agency (MHRA) and the Committee for the Safety of Medicines (CSM) to take a closer look at co-proxamol in 2004.

At the same time, the team performed a study of 123 cases of co-proxamol suicide to determine the circumstances involved. This revealed that in the vast majority of cases (80%) the co-proxamol was prescribed for the individual's own use, rather than for someone else. It also showed that even relatively small overdoses could prove fatal and that in most cases death occurred before the patient reached hospital.

It was decided that co-proxamol should be withdrawn and between 2005 and 2007 its use was gradually phased out with no new patients being prescribed the drug. By 2008 it had been completely withdrawn. Thankfully, Keith Hawton's team found that not only did suicides using co-proxamol reduce, but there was no accompanying switch to overdoses involving other drugs.

This research has had far reaching consequences. As a result of Keith Hawton's work the European Medicines Agency (EMA) recommended that dextropropoxyphene, the toxic component of co-proxamol, should not be prescribed within the EU. Subsequently, the authorities in the USA, Canada, New Zealand, Singapore and Taiwan have all acted to withdraw dextropropoxyphene.

DEVELOPING TREATMENTS FOR ANXIETY DISORDERS

LED BY: PROF. CATHERINE HARMER, PROF. GUY GOODWIN

UNIVERSITY OXFORD	TYPE OF RESEARCH TRANSLATIONAL	TOPIC SOCIAL ANXIETY DISORDER PANIC DISORDER	IMPACT ON —	THERAPY TYPE PSYCHOLOGICAL
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No one is exempt from the occasional burst of anxiety, particularly in dangerous or stressful situations. However, people with clinical anxiety disorders are tormented with this feeling even when they are not in objective danger or stress. Professor David Clark and colleagues from the Departments of Experimental Psychology and Psychiatry at Oxford University have made a significant advance in helping these people cope.

Panic and social anxiety disorder are two particularly common forms of anxiety disorder. In panic disorder people experience, and fear, sudden attacks of anxiety, many of which seem to come 'out of the blue'. In social anxiety disorder people experience intense fear over routine social interactions such as speaking up at work, meeting strangers or talking on the phone. Often the fear is driven by the worry of doing something embarrassing or humiliating in front of other people who then see it has made one anxious. Professor Clark says "It's a fear of other people seeing your fear."

In the past, there were few effective treatments for these two anxiety disorders. Treatment with antidepressants had limited success and many patients relapsed after they stopped taking the drugs. Trying a different approach, early behavioural therapies focused on repeated exposure to the stressful stimulus. However, fewer than half of patients benefited from this treatment.

Professor Clark's team decided to focus on the psychological processes that maintain the anxiety and prevent recovery. In panic disorder, the team observed that sufferers have a tendency to misinterpret harmless body sensations such as a rapid heart rate or intrusive thoughts as a sign of an imminent physical or mental disaster (e.g. heart attack or the onset of insanity). People adopt safety behaviours, like sitting down or trying to push the intrusive thoughts out of their minds, so that they don't learn that the sensations are in fact harmless. Sufferers also become hyper-attentive to their

bodies and are able to detect minor sensations that many others cannot.

The researchers developed a cognitive therapy to specifically target the misinterpretations, safety behaviours and hyper-attention. In clinical trials the new therapy was found to be highly effective and superior to both drugs and behaviour therapy. These findings were soon confirmed in independent trials in the Netherlands and Sweden.

In social anxiety disorder, the team considered two key issues: when sufferers focussed too much on themselves (negative self-imagery); and the use of safety behaviours, such as talking fast during a meeting or finding an excuse to avoid the situation altogether. The researchers used video feedback to help people gain an accurate impression of how they actually appear, rather than how sufferers think they appear, and taught people how to let go of their safety behaviours. The new treatment has now been evaluated in randomised controlled trials in the UK, Germany and Sweden and the results show it to be superior to both other psychological therapies and antidepressants.

As a result of the new therapies, recovery from these two debilitating disorders can be as high as 70-80%. The National Institute for Health Care and Excellence (NICE) produced guidelines in 2011 that recommend both the cognitive therapies developed by the Oxford group as first choice treatments.

Recently, the government has launched an initiative to Improve Access to Psychological Therapies (IAPT) within the NHS. The Oxford group's therapies have been included in the national IAPT training curriculum and to date around 2,200 new therapists have learned the treatments and are delivering them in over 130 local services. A further 900 therapists will be trained over the next two years, further increasing access to the treatments.

THE EVIDENCE BEHIND PSYCHOLOGICAL THERAPIES

LED BY: PROFESSOR ANTHONY ROTH & PETER FONAGY

UNIVERSITY
UCL

TYPE OF RESEARCH
TRANSLATIONAL

TOPIC
DEPRESSION,
SCHIZOPHRENIA

IMPACT ON
STANDARDS

THERAPY TYPE
PSYCHOLOGICAL

Depression and anxiety in adults together represent the largest proportion of significant mental health problems in the UK. UCL research has been used to develop a programme supporting speedy access to evidence-based psychological therapies for these problems; that programme has now been used by more than a million people.

In 1996, Professors Anthony Roth and Peter Fonagy from UCL co-authored *What Works For Whom?* A critical review of psychotherapy research. The book became a cornerstone for global policy and practice in psychological therapy. A second edition was published in 2005 and in 2002, Fonagy published *What Works For Whom? A critical review of treatments for children and adolescents*, expanding into the evidence for the full range of child and adolescent mental health treatments.

What Works For Whom? represented the first systematic and comprehensive review of all quantitative studies of the efficiency of psychological therapy over the major diagnostic categories of mental health disorder. It quickly became a standard reference and teaching text for psychological therapy, for postgraduate training programmes and academic courses around the globe and had a significant influence on clinical practice.

In 2008 the UK government launched the Improving Access to Psychological Therapies (IAPT) programme. The goal of the programme was to ensure faster access to evidence-based psychological therapies for depression and anxiety in adults. The push for the programme's development was underpinned specifically by evidence in *What Works For Whom?*

Since its inception, the IAPT programme has increased funding for psychological services from £161 million in 2007-8 to £389 million in 2011-12. The availability of therapists, and the number being trained, has increased and they have been trained in specific techniques for which there is evidence of efficacy.

By the end of its first full three years more than 1 million people had used the new IAPT services; recovery rates were in excess of 45% and more than 45,000 people had moved off benefits. Along with its impacts on individual patient well-being, IAPT has delivered significant economic gains via NHS savings, reduced welfare spending, and increased return to the workforce.

In 2011 IAPT was expanded to include children and adolescents. Professor Fonagy was the National Clinical Lead, overseeing a four-year, £8 million/year investment. In 2012, ministers agreed to additional investment for 3 years, and in 2013 to extend the programme to 24 new sites, with services covering 54% of 0-19 year olds in England by the end of 2013.

By comprehensively demonstrating and espousing the principles of evidence-based practice, *What Works For Whom?* has helped cement the commitment to evidence-based practice which is now an underlying principle for almost all UK professional training in psychological therapy.

REDUCING SUICIDES - THE NATIONAL CONFIDENTIAL INQUIRY INTO SUICIDE AND HOMICIDE BY PEOPLE WITH MENTAL ILLNESS

LED BY: PROFESSOR LOUIS APPLEBY

UNIVERSITY	TYPE OF RESEARCH	TOPIC	IMPACT ON	THERAPY TYPE
MANCHESTER	TRANSLATIONAL	SUICIDE	STANDARDS	-

Suicide is, inevitably, one of the most serious adverse outcomes of mental health issues. Researchers at the University of Manchester have worked to give the problem the attention it deserves and devise changes to clinical practice and policy that have reduced the risk of suicide in mental health patients.

Researchers from the University of Manchester had the aim of reducing the risk of suicide in mental health patients. Led by Prof Louis Appleby and others they wanted to recommend changes to clinical practice and policy that would have a big effect. If they wanted to find a solution they would need data, so they set up a register of all suicides occurring in the UK. This register, the National Confidential Inquiry into Suicide and Homicide by People with Mental Illness (NCISH) is the largest database of its kind in the world and includes details of 99,000 general population suicides and 25,000 mental health patient suicides.

At the beginning data was patchy, with only 20 per cent of suicides being reported in 1997. This has now risen to 95 per cent and for the last 13 years, the team have combined the national register with more detailed information collected directly from clinical teams for people who have been in contact with services in the previous 12 months.

The researchers discovered that 25 per cent of all suicides occurring in the general population are in contact with mental health services in the 12 months prior to suicide. Furthermore, of this group, half are in contact with services in the week before death.

By gathering more information the team determined that approximately 10 per cent of suicides occur during an in-patient admission, 25 per cent occur after patients have absconded from a ward and nearly 20 per cent of patient suicides occur within three months of discharge from in-patient care. The highest risk period is the first week after discharge, particularly within the first three days.

Using all this evidence, the researchers generated a number of recommendations; key among them were: 24-hour crisis teams; dual diagnosis policies and multi-disciplinary reviews following patient suicide. Patient suicide rates fell by 26 per cent and in-patient deaths fell by 58 per cent. In total, the recommendations were credited with saving 200-300 patient deaths per year.

The findings and recommendations have provided definitive figures on suicide to clinical services and governments, driving policy and informing national and international suicide prevention strategies. In 2013 the group founded a social enterprise, Safer Care Ltd, to help NHS Trusts address patient safety and suicide prevention, train staff and provide expert scrutiny of services. With each successive year the NCISH provides more data in the bid to reduce deaths by suicide.

BREAKING DOWN THE MYTHS OVER DRUGS FOR SCHIZOPHRENIA

LED BY: PROFESSORS SHÔN LEWIS, GRAHAM DUNN, LINDA DAVIES

UNIVERSITY
MANCHESTER

TYPE OF RESEARCH
TRANSLATIONAL

TOPIC
PSYCHOSIS,
PRESCRIBING

IMPACT ON
STANDARDS

THERAPY TYPE
PHARMACOLOGICAL

The next generation of antipsychotic drugs, though more expensive, was supposed to have many benefits for people with schizophrenia. Researchers at the University of Manchester scoured the evidence and showed new wave of hype had no substance.

Schizophrenia affects one per cent of people and usually leads to lifelong disability. The main treatment has been the use of antipsychotic drugs. Developed in the 1950s they are among the biggest selling and most profitable of all drugs. In 1994 a second generation antipsychotic (SGA) was introduced and became the chosen choice of prescription.

However, the SGA drugs cost 20 to 30 times more than first generation (FGA) drugs. These new drugs were perceived to be, and promoted as, being more effective, with fewer side-effects and preferable to patients. SGAs were claimed to be cost-effective because the higher initial costs would be reouped from savings on inpatient stays. Most evidence had come from industry-sponsored, short-term efficacy trials concentrating on symptoms. By 2004, expenditure on England on antipsychotic drugs had increased from £19.9m in 1994 to £211.9m

The University of Manchester (UoM) undertook studies between 1999 and 2003 to test whether, in people with schizophrenia who required a change of treatment, the class of SGA drugs (other than clozapine) would be associated with improved quality of life compared with FGA drugs.

The research, led by Profs Shôn Lewis, Graham Dunn and Linda Davies, was known as the Cost Utility of the Latest Antipsychotic Drugs in Schizophrenia Study (CUtLASS), focused on the patients' quality of life over one year of treatment. It was a non-commercially funded, 14-site randomised controlled trial involving people aged 18-65.

It was widely expected that the SGA drugs would have fewer side-effects and greater benefits. In fact, the FGAs led to greater improvements in quality of life and symptoms. There was no difference between the level of side-effects, patient preference or associated costs of care and ultimately, pound for pound, the FGAs were shown to be more cost-effective.

The results of the UoM study have informed clinical guidelines in the UK, USA, Canada and beyond, leading to changes in prescribing practice across the world. In Canada alone, the recommendations for first generation recommendations increased by 38 per cent from 2005 to 2009. In an editorial accompanying the original study, a lead researcher 'asked how an entire medical field could have been misled into thinking that the expensive drugs, such as Zyprexa, Risperdal and Seroquel, were much better.'

SPEEDING UP DEVELOPMENT OF THE NEXT ANTIDEPRESSANTS

LED BY: PROFESSORS CATHERINE HARMER & GUY GOODWIN

UNIVERSITY OXFORD	TYPE OF RESEARCH BASIC, TRANSLATIONAL	TOPIC DEPRESSION	IMPACT ON STANDARDS	THERAPY TYPE PHARMACOLOGICAL, PSYCHOLOGICAL
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Depression is extremely common, with 1 in 5 of us being affected at some point during our lives. The available antidepressants are extremely useful but researchers are continuously trying to develop better ones. However, even discovering which potential drugs are the right ones to investigate takes a huge amount of time and can cost tens of millions. Researchers at Oxford University's Department of Psychiatry have developed a test that helps to quickly establish which drugs have the greatest potential.

One key symptom of depression is that people are more likely to spot negative faces than positive ones. Professor Catherine Harmer and Professor Guy Goodwin used this fact to assess the effects of potential antidepressants. They created a computer test where people sit in front of a screen that flashes up a picture of a face for just 0.5 seconds. The face may show one of a variety of emotions e.g. it may be happy, sad or angry. The person doing the test is then asked which face they saw. People with depression will say they have seen more sad or angry faces than people without depression. However, just one dose of an antidepressant is enough to improve a patient's score, which opens up a whole new way of testing potential drugs.

The idea for this work came from the recognition that cognitive behavioural therapies (CBT), which target the biases in the way depressed patients consciously think and cope with their symptoms, are as effective as antidepressant drugs. So if CBT is as effective as the drugs, and if CBT corrects unconscious negative biases then, suggested the researchers, maybe the drugs do too. The scientists discovered that, indeed, these negative biases can be reversed with antidepressant drugs. Furthermore, these changes also show a change in brain activity that can be detected with functional brain imaging machines and, significantly, that a single dose of antidepressants for depressed patients is enough to make their responses the same as for healthy people.

Many subsequent studies have confirmed how well this test works and the researchers realised that this tool, known as the Emotional Test Battery (ETB) could be used with healthy volunteers to sift through drugs being investigated as potential new antidepressants. It takes a huge amount of time, money and effort to bring a new drug to market - sometimes decades - and pharmaceutical companies are put off developing new drugs because of these costs. There are many areas of the brain and types of signals within the brain that we might be able to target with new drugs, and scientists are able to create many different types of chemicals that may have an effect, but working our way through all of them would take a huge amount of effort particularly as each one has to be fully developed and tested on thousands of people. Crucially, by using the ETB researchers can test at a much earlier stage which drugs are likely to have a useful effect and should be prioritised.

Already, the ETB has been incredibly valuable and it was a landmark for psychiatry when the results of an experimental medicine study enabled a company to reach an early decision to go with the next phase development of an antidepressant likely to prove effective in the clinic. This not only speeded up development of a promising drug but also saved the company millions of pounds that could be used to develop other medicines.

UNDERSTANDING RECREATIONAL DRUGS/ PUBLIC, POLICY AND PSYCHOPHARMACOLOGY

LED BY: PROFESSOR VAL CURRAN

28

UNIVERSITY	TYPE OF RESEARCH	TOPIC	IMPACT ON	THERAPY TYPE
UCL	BASIC, CLINICAL	RECREATIONAL DRUGS, CANNABIS, PSYCHOSIS	–	–

Researchers from UCL have been investigating recreational drugs in an attempt to understand exactly which components of the drugs have which effects and why they affect people differently. Their work has influenced how these drugs are discussed by the public and policymakers across the world.

UCL's Clinical Psychopharmacology Unit (CPU), led by Professor Val Curran, has been pioneering human research on the effects of major recreational drugs, including cannabis, ketamine and MDMA (ecstasy).

Cannabis contains around 100 unique ingredients known as cannabinoids. These cannabinoids have different effects on users, the most famous of which is THC as it's the component that gets users high. The role of THC has been known for some time, but, in the largest study of its kind the CPU discovered that the second most abundant cannabinoid, cannabidiol (CBD) actually protects against the harmful amnesic and addiction-related effects of THC. However, not all forms of cannabis contain CBD. Whilst it is present in herbal and resin forms of cannabis it is almost absent in a commonly-used form known as skunk. This means that users of skunk are at much greater risk of suffering harm.

Cannabis is not the only drug studied by the CPU. They are also responsible for over 90% of all research on ketamine abuse and discovered that frequent use of the drug has been associated with both neurocognitive impairment and addiction. More than this, they also discovered that ketamine can produce physical harms such as ulcerative cystitis which damages the bladder to such an extent that users can need a bladder replacement.

The CPU's innovative use of a laboratory at a rave music event led to the discovery of the 'mid-week blues' that followed acute use of MDMA. Since then the researchers have shown that longer-term effects of the drug, including brain function and altered mood,

become reduced if not fully reversed, once users stop taking the drug.

Many of these research findings have been used to discuss and debate policy in the UK and abroad. In 2006 Prof Curran presented expert evidence about ketamine to the Home Office's Advisory Council on the Misuse of Drugs (ACMD) and in 2012 Prof Curran joined the ACMD's working group on a new review of the drug. At the same time the Independent Scientific Committee on Drugs (ISCD) commissioned the researchers to write the Ketamine Review. Prof Curran was also asked to give evidence about new psychoactive substances to the All-Party Parliamentary Group on Drug Policy Reform at the House of Lords. Internationally her evidence was used to guide proposed amendments to the US sentencing laws and in 2013 the Netherlands, using the research on THC and CBD, devised separate laws for high and low-potency THC cannabis.

The scientific advances have also been shared through public events and the national news media. In 2012, 'Drugs Live: the ecstasy trial' was funded and broadcast by Channel 4 based on Professor Curran's live fMRI study of the effects of MDMA. Over two million people across the UK watched the two-part documentary, further prompting discussion including the biggest online debate of any programme on that channel to date.

USING CBT FOR EATING DISORDERS

LED BY: PROFESSORS ANTHONY ROTH & PETER FONAGY

UNIVERSITY
OXFORD

TYPE OF RESEARCH
TRANSLATIONAL

TOPIC
DEPRESSION,
SCHIZOPHRENIA

IMPACT ON
TRAINING

THERAPY TYPE
PSYCHOLOGICAL

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