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Parity of esteem between mental and physical health

Means different things to different people, making it difficult to enforce

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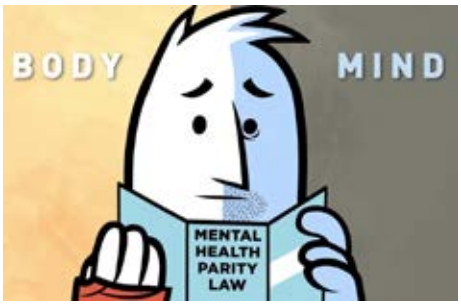
Although parity of esteem between mental and physical health has been a high profile political issue in the UK since 2011, debates about the relative esteem and provision for mental and physical health are long standing. For example, the report that preceded the 1959 Mental Health Act (which removed all restriction on mental health treatment in general hospitals) claimed—prematurely perhaps—that "most people are coming to regard mental illness and disability in much the same way as physical illness and disability."[1]

The recent coinage of "parity of esteem" is uncertain. The term parity became enshrined in US law in 2006, when it was mandated that mental health and substance misuse problems should treated the same as medical and surgical conditions in health insurance coverage and not be excluded. It became a key part of the 2010 UK coalition government's mental health strategy, No Health Without Mental Health, in 2011. The Health and Social Care Act 2012 was altered during its passage into law to include specific reference to mental health, and the NHS Constitution and NHS Mandate 2014-2015 both include specific commitments in this area. Since 2012 there have been six major reports dealing with mental health in different ways.[2-7]

How should parity be interpreted?

Parity of esteem is beset by definitional and practical problems, and the term is not in common use outside the UK. The definition proposed by the Royal College of Psychiatrists has the virtues of simplicity: "Valuing mental health equally with physical health."[2] However, this gives few clues to achieving it in practice. It makes little sense to aim for exact parity in funding because there is no logical reason for a 50/50 split between mental and physical health spending. Instead, parity should mean funding according to the prevalence of the (mental or physical) health problem or "burden of disease." Currently mental health accounts for around one quarter of the disease burden across the NHS but receives only 13% of the funding. However, if funding is allocated on the basis of prevalence, does it make sense simply to compare



Not just about the money

physical and mental health? Should account be taken of the projected savings that some treatments secure for other health services? For example, money invested in programmes such as early intervention in psychosis, smoking cessation, and peer support save 15 times more than they cost over 10 years.[8]

Esteem is difficult to measure and nearly impossible to legislate for, despite the assertion of Norman Lamb, minister of state for care and support, that the NHS Constitution's commitment to parity has "legal force."[9] Nevertheless, such considerations go to the heart of the struggle against the longstanding stigma that is attached to mental illness. This stigma spills over into the attitudes of those who treat and research mental disorders. Efforts to combat this have recently met with some success, through the Time to Change initiative, led by Mind and Rethink Mental Illness.[10]

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Conditions such as diabetes and cancer are spared the sorts of controversies that swirl round mental health conditions: specifically, are they diseases of the brain, pathological psychological states, or societal problems? (Probably all three.) Mental illness has always evaded precise definition, and to claim that there are no differences between mental and physical disorders does not accord with reality. However, attempts to achieve parity of esteem must negotiate the historical, unhelpful, and artificial separation of mental health from other kinds of medicine—including in the asylum. The most important part of parity must be to accord all people involved with mental illness—whether patients, carers, healthcare professionals, or academics—the same respect given to people involved with diabetes or cancer.

A good place to start would be addressing the findings that people with a diagnosis of severe mental illness die on average 15-25 years before those without—largely from preventable physical diseases such as heart disease and diabetes.[11 12] This stark statistic perfectly demonstrates both the lack of parity and the connection between mental and physical health. Recent changes to general practitioner payments may make things worse: three payments have been removed in England and Wales (but not in Scotland) for monitoring the physical health of patients with severe mental illness despite recommendations from the National Institute for Health and Care Excellence that they were retained. This undercuts parity in a crucial area, although a new national incentive (CQUIN) was introduced in April 2014 for mental healthcare providers to carry out physical health checks until 2016.[13 14] It is these questions of treatment that make it clearest that mental and physical health are inseparable. The above reports all stress integration and "joined-up care," which might be achieved through liaison psychiatry and educating medical professionals and healthcare commissioners.

Parity of esteem is thus not really about money. Funding is important, of course, but spent carefully, much of it will pay for itself in the medium term. The issue is one of political will to accept spending in the short term for financial and therapeutic gains later. It is not about literal or mechanical parity. The respect, hope, and relentless effort afforded to those with severe and chronic injuries (to the spinal cord, for example) are not always replicated in attitudes towards people with severe, chronic schizophrenia. Parity means equal respect and hope when dealing with difficult prognoses.

Rather than focusing on definitions, we should first fix obvious disparity. It is through tackling excess mortality and stigma that we will be able to see more clearly what parity looks like. We must always discriminate in an analytical sense between different diseases or treatments, but tackling administrative and therapeutic separation and enduring stigma is vital to end inequality for mental health.

Commissioned; not externally peer reviewed.
Competing interests and references are on thebmj.com.
Cite this as: *BMJ* 2014;349:g6821

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- Research: Vitamin D and multiple health outcomes (*BMJ* 2014;348:g2035)
- Research: Vitamin D and risk of cause specific death (*BMJ* 2014;348:g1903)
- Research: Effects of vitamin D supplementation on bone density in healthy children (*BMJ* 2011;342:c7254)

Vitamin D genes and mortality

Harnessing genetics to re-examine the case for vitamin D

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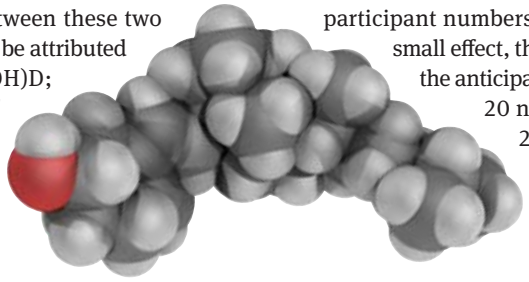
Readers of medical journals would be forgiven for a experiencing a sense of déjà vu—another study investigating of the role of vitamin D in chronic disease, another editorial. They might also be forgiven for thinking that little is left to say about vitamin D that has not already become a cliché. The wealth of research articles written on vitamin D in recent times is not the result of a comedic temporal loop designed to make one feel like Bill Murray relentlessly reliving the same experience in the 1993 cult movie *Groundhog Day*. Rather it reflects the collective will of the academic community to investigate this topical public health question as rapidly as possible. Afzal and colleagues therefore need make no apology for coming back to the vitamin D question again in the linked paper, here using a mendelian randomisation approach.[1]

What is mendelian randomisation, and why might it be better than classic observational epidemiology? We now know that approaches linking circulating 25-hydroxyvitamin D (25-(OH)D) to health outcomes are seriously hampered by confounding and reverse causality.[2] The circulating concentration of 25-(OH)D is influenced by factors such as time spent outdoors, diet, adiposity, smoking, and acute phase response. Mendelian randomisation attempts to eliminate such problems by exploiting the random allocation of genetic material at conception.

Natural experiment

Take two groups of people within a population, one with a genetic variant or variants leading to lower average circulating 25-(OH)D concentrations for life, the other group without these variants. Any differences in health outcomes between these two groups of people can be attributed to circulating 25-(OH)D; the concentration of this metabolite and its downstream biological effects are the only parameters that should differ systematically between the two groups. All other traits (such as adiposity, smoking, and alcohol intake) should be equally distributed in a large population. This situation then can be viewed as a natural experiment, theoretically analogous to a randomised controlled trial.[3]



Mendelian randomisation is now being used to help to prioritise drug development targets,[3 4] as well as to clarify cause and effect where reliable evidence from randomised controlled trials is difficult to obtain or potentially unethical. Does obesity cause cardiovascular disease? Mendelian randomisation analysis suggests that it does.[5] Does modest alcohol intake protect against cardiovascular disease? Mendelian randomisation analysis suggests that it does not.[6]

Afzal and colleagues' study comprised 95 766 people from Copenhagen in whom four separate genetic variants were determined, all single nucleotide polymorphisms associated with circulating concentrations of 25-(OH)D. Presence or absence of these variants was then related to risk of death, which occurred in 10 349 people.[1] The polymorphisms seem to influence circulating 25-(OH)D through altered enzymatic activity. The authors combined the effects of individual polymorphisms by generating a score to maximise power. Each score increment was associated with a 2% (95% confidence interval 0% to 3%) higher odds of death from any cause and a 3% (0% to 6%) higher odds of death from cancer but no difference in cardiovascular death (2% lower odds; −4% to 1%). The small effect sizes do not diminish the potential importance of these findings in the search for evidence of a causal link between low 25-(OH)D concentrations, disease, and death.

The magnitude of effect of the genetic score on circulating 25-(OH)D is small, and mendelian randomisation studies must include large participant numbers. As a result of the small effect, the authors modelled the anticipated effect of a larger 20 nmol/L reduction in 25-(OH)D and report a 30% (5% to 61%) increase in the odds of death from any cause. These predictions, however, hinge on the primary findings being valid and reliable.

How robust are these findings, and should they alter current thinking about vitamin D and health? The study is well conducted but is subject to potential limitations, as are all mendelian randomisation studies.[3] Even if we believe the study to be robust, and despite the narrow confidence intervals around the estimates, the borderline significance of the findings means that we should be careful not to over-interpret. Using the same cohorts, this group recently reported that genetic variants associated with low plasma 25-(OH)D concentrations are associated with type 2 diabetes.[7] A more recent mendelian randomisation analysis, with more than five times the number of cases of type 2 diabetes, did not confirm these findings,[8] and nor do other data.[9] The new study in isolation, albeit focused on mortality and not diabetes, cannot therefore be taken as sufficient evidence to change clinical practice. The epidemiological cliché that "more data are required to confirm these findings" once again applies.

The new study in isolation cannot be taken as sufficient evidence to change clinical practice

Nevertheless, Afzal and colleagues' findings provide some cause for optimism about the impending results of large vitamin D trials, more so if they are rapidly confirmed by additional mendelian randomisation studies with greater power. Trials of vitamin D supplementation such as VITAL and FIND will start reporting in 2017,[10 11] so we do not have to wait too long to see whether mendelian randomisation studies and large scale trials are in agreement.

Mendelian randomisation is an important emerging research tool, is here to stay, and is beginning to be recognised by guideline committees.[12] Of course, in research areas where randomised trials are possible (or indeed ongoing), mendelian randomisation studies should not displace them as the gold standard evidence in clinical guidelines or in the minds of healthcare professionals. In the meantime, there may well be yet more "groundhog days" for vitamin D.

Commissioned; not externally peer reviewed.
Competing interests and references are on thebmj.com.
Cite this as: *BMJ* 2014;349:g6599

RESEARCH, p 11

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- Clinical review: Age related macular degeneration (*BMJ* 2010;340:c981)
- Research: Bevacizumab for neovascular age related macular degeneration (ABC Trial) (*BMJ* 2010;340:c2459)

Until bevacizumab has been appraised the GMC must also be unambiguous in supporting doctors who use the off-label drug instead of licensed alternatives

Bevacizumab for macular degeneration and other retinal disorders

Government must act to remove the hurdles

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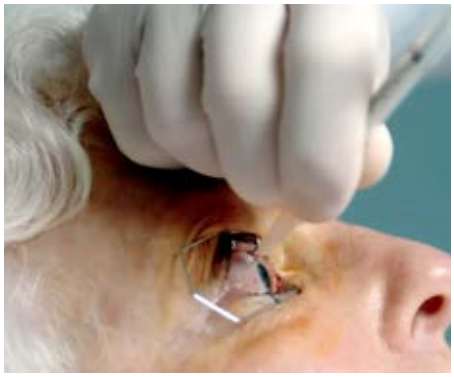
Age related macular degeneration (AMD) is the commonest cause of blindness among elderly people in the developed world.[1] The treatment of neovascular AMD was revolutionised by clinical trials of ranibizumab (Lucentis), a monoclonal antibody against vascular endothelial growth factor. These showed that vision was improved with repeated monthly intravitreal injections.[1] The National Institute for Health and Care Excellence (NICE) approved its use in 2008 and subsequently approved aflibercept, which also inhibits vascular endothelial growth factor, in 2013.

Since then, carefully conducted clinical trials have shown that a similar drug, bevacizumab (Avastin), is as effective as ranibizumab at improving or stabilising vision in patients with neovascular AMD. The two largest studies are CATT (Comparison of AMD Treatments Trials) in the US[2] and the IVAN (Inhibition of VEGF in Age-related Choroidal Neovascularisation) trial in the UK.[3] Bevacizumab, however, is not licensed for use in eyes.

There are concerns that bevacizumab is not as safe as ranibizumab. However, a recent Cochrane review found no difference between the two drugs for deaths, all serious systemic adverse events, or specific subsets of adverse events with the exception of gastrointestinal disorders.[4] It concluded that, from a safety point of view, there was no significant evidence to support the preferential use of either bevacizumab or ranibizumab in the treatment of neovascular AMD.[4]

The IVAN study found that using bevacizumab instead of ranibizumab to treat neovascular AMD would save NHS England £102m (€128m; $160m) a year.[5] In the US switching to bevacizumab would save nearly $29bn over 10 years without substantially altering patient outcomes.[6] Therefore switching to bevacizumab seems an obvious way to minimise costs in this time of austerity. Furthermore, there are other retinal conditions for which the best treatment is vascular endothelial growth factor inhibitors. These include retinal vein occlusions and diabetic macular oedema. NICE has also approved ranibizumab for these conditions. The evidence base is, as yet, not so strong for bevacizumab in these diseases, but it is likely that it will be shown to be effective, again at a much cheaper cost.



At last, a clear way forward

All vascular endothelial growth factor inhibitors need to be given repeatedly over many years. In the context of an ageing population, the drug costs to the NHS can be expected to escalate exponentially.

In 2011, after the CATT study was published, the Royal College of Ophthalmologists stated: "The college believes that the NHS executive should urgently instruct NICE and the Medicines and Healthcare Products Regulatory Agency (MHRA) to evaluate the use of Avastin in the treatment of AMD and produce national guidelines for the use of anti-VEGF agents in AMD."[7] That call was ignored.

Obstacles to using bevacizumab

Commissioners are expected to enact NICE guidance, and NICE has not considered bevacizumab. This makes it difficult to commission the use of bevacizumab and to deprive patients of NICE sanctioned treatment. Furthermore, the General Medical Council (GMC) states that doctors should prescribe unlicensed drugs only if "there is no suitably licensed medicine that will meet the patient's need."[8] Without unequivocal GMC and NICE support, ophthalmologists are understandably concerned that they may be assuming unacceptable personal liability by using an unlicensed drug when a licensed alternative exists. Where these concerns don't exist, ophthalmologists are happy to prescribe bevacizumab. For example, bevacizumab is the market leading drug for neovascular AMD in the US.[9] Closer to home, in Guernsey, where NICE guidance does not apply, bevacizumab is the only therapy commissioned for the treatment of neovascular AMD.

To change treatment in the UK NICE must appraise bevacizumab along with licensed drugs for the treatment of neovascular AMD. Other vascular endothelial growth factor inhibitors do not necessarily need to be excluded because, for example, some patients may benefit from a switch from one to another and aflibercept has a practical advantage in that it can be given at two monthly instead of monthly intervals.[10] Therefore there should still be the option of using alternatives to bevacizumab if they are in the patient's best interest. Until bevacizumab has been appraised the GMC must also be unambiguous in supporting doctors who use the off-label drug instead of licensed alternatives.

There are reasons why NICE has not considered bevacizumab. The same company Roche makes ranibizumab and bevacizumab (Novartis has marketing rights outside the US for ranibizumab) so there is little financial incentive for Roche to pursue NICE appraisal for bevacizumab or to have it licensed for use in neovascular AMD.[11 12] Therefore in this unprecedented situation, either the regulators must find a way to license a drug without the sponsorship of the company that owns it or NICE must find a way to consider an off-label drug that is not being submitted for appraisal by its owners. Bevacizumab could then be used routinely in the UK, saving the NHS millions of pounds a year.

The hospital eye service is facing a serious and ever increasing capacity problem because of the demand for frequent intravitreal injections. Consequently, patients may not be getting treatment when they need it and not getting the best results. The money saved by switching to bevacizumab could facilitate investment in these services. Given the overwhelming evidence for the effectiveness and safety of bevacizumab in the treatment of neovascular AMD, central government should act to overcome the bureaucratic hurdles that prevent its use.

Commissioned; not externally peer reviewed.
Competing interests and references are on thebmj.com.
Cite this as: *BMJ* 2014;349:g6887

Until recently, the orthodox view about the future of hospitals was based on centralisation of most acute care and some decentralisation of less acute work, outpatients, and some diagnostics

A more encouraging future for hospitals?

Forget the view that hospitals are bad and expensive while primary care is good and cheap

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The quality of the debate about the role of hospitals has improved recently. Evidence of this can be found in the work of the Royal College of Physicians' Future Hospital Commission[1] and last month's *Five Year Forward View*[2] from NHS England. Orthodox views about the planning of hospitals, their role in the healthcare system, and how they should develop are being re-evaluated. This scrutiny offers hope to a beleaguered part of the healthcare system.

The Department of Health has not put much serious thought into hospital policy for some time, which may explain why current UK policy could be crudely characterised as: "hospitals—bad and expensive; community and primary care—good and cheap." This warped view has distorted decision making—for example, by focusing more on where rather than how care is provided.

The reports from the Future Hospital Commission and NHS England both challenge this. The commission proposes partnerships between hospitals and primary and community services. NHS England envisages a range of options such as hospitals vertically integrating with primary and community services or, equally radically, larger scale primary organisations taking on some specialist hospital work, including admitting patients to hospital.

The Future Hospital Commission's ideas challenge the current model of outpatient care. Specialists in chronic diseases are already developing new approaches in partnership with primary care that show that the commission's ideas work for common conditions, and with good results for patients.[3]

Different approach to centralisation

Until recently, the orthodox view about the future of hospitals was based on centralisation of most acute care and some decentralisation of less acute work, outpatients, and some diagnostics. The observed relation between quality and volume of work has been the logic driving centralisation. Much of the evidence comes from trauma care, surgery, neonatal care, and cancer services.[4] However, the evidence for a quality-volume relation in medical specialties[5] is less convincing (with the exception of services for stroke[6] and suspected or proved acute myocardial infarction). In any case, most UK hospitals already have relatively high numbers of medical cases. A related imperative for centralisation has been the requirement for extended hours of coverage by senior doctors to reduce the variability in outcomes with time and day of admission.[6] Workforce availability and costs contribute to the economic case for centralisation.

Things can only get better

However, large scale centralisation of services is difficult and expensive. Not all the benefits are certain, it can take a long time, and is often opposed. The public values access to local hospitals, and having primary care close to some specialist services has advantages. Both reports challenge the centralisation orthodoxy and propose a more nuanced approach. Setting up networks so that specialist care can be given locally, supported by experts at different hospitals, is one solution. These networks should create systems that ensure patients get access to the best care but also minimise the need for travel, delays, and hazardous handovers between providers.

Although smaller hospitals will need to change substantially, both reports offer them a more encouraging future than has previously been available. This could mean joining a wider network of hospitals or new ways of working with GPs and community and social care.[7]

Operating successful networks with specialist hubs supporting services in other locations is not easy. Ensuring rapid transfer of patients, when necessary, without difficult negotiations and the fair treatment of each part of the network is challenging. History is not encouraging: peripheral hospitals have had clinics cancelled and staff pulled back because of the demands of the main centre. Networks will need to be made up of organisations that are equals, with clear rules for transferring patients, shared clinical governance, good leadership, and collegiate relationships among clinicians.[8]

A third important idea is a strong restatement of the importance of generalist skills, particularly in acute medicine. A pressing need exists to be able to deal with the rising numbers of people with social and medical complexity associated with frailty or multimorbidity. This has substantial implications for medical training and the shape of the workforce more generally.[9]

Hospitals generally care for a well defined local population. They are usually one of the largest employers in their area. Neither of these facts has received the attention they deserve. However, both reports point to the potential for hospitals to do more to extend their influence more widely. Adopting a population health approach, working with primary care and local government, paying much more attention to the health of their employees, and looking at health and wellbeing more widely are seen as features of the role of hospitals in future.

Finally, both reports suggest a similar approach to achieving change. The NHS has tended to use technocratic methods to arrive at a solution, which has been implemented in a top down fashion with limited regard to local context or possible doubts about the evidence. Both reports advocate experiments with proper evaluation that build on evidence and generate new ideas and understanding. This may be slower but is more likely to be successful.

The shift in the tone of the debate on hospitals is encouraging. But the changes need to be clinically led and inspired by the challenge of improving care rather than just meeting political or managerial objectives.

Commissioned; not externally peer reviewed.
Competing interests and references are on thebmj.com.
Cite this as: *BMJ* 2014;349:g6780