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From alternative medicine to 'alternative science'?

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Most forms of alternative medicine are ancient and long precede the scientific era. Acupuncture and herbal medicine, for instance, were being practised millennia before healthcare ever made serious attempts to become scientific and, after it did, these treatments remained firmly out of the realm of science. When the NHS was created in 1948 its founding fathers hardly considered alternative medicine. Practitioners of acupuncture, herbal medicines and so on were therefore confined to the private sector. Alternative medicine, it seems, represented the opposite of science.

Today the situation has somewhat changed. Many researchers around the world have developed a fascination with some areas of alternative medicine. Acupuncture, for instance, has been tested in well over 1,000 clinical trials and perhaps even more studies exist into its possible mechanism of action.[1,2] While some of the evidence emerging from these investigations has been encouraging, most of the therapeutic claims of alternative practitioners are not being confirmed by science.[3]

The field of alternative medicine has continually been frustrated by the fact that much of the scientific evidence is so obviously not in line with its hopes and expectations. This disappointment has led to a sequence of reactions and developments. First, there was denial. Proponents of alternative medicine seemed to think that their positive experiences outweigh the scientists' negative results.[4] Therefore they tended to ignore the scientific evidence altogether. When this position became untenable, some proponents took the view that scientific data are not needed nor applicable because alternative medicine is holistic or integrative and thus defies being put in the straitjacket of conventional science.[5] When this stance was shown to be wrong too, the next step was to try creating an 'alternative science' that would provide positive evidence for alternative medicine.

The recent publication *Assessing complementary practice,* published by the King's Fund in association with the Prince's Foundation for Integrated Medicine, is a remarkable milestone on the paths towards 'alternative science'.[6] The report states that 'complementary practice presents researchers with a unique set of challenges' and repeatedly advocates evaluating alternative medicine by different standards than those of conventional science. This, I would argue, is an attempt to create an 'alternative science'. A few quotes may explain:

- 'Complementary practice often seeks to maximise the benefits of the setting and the relationship between the practitioner and the patient as part of the practice. It is our view that this effect is appropriately included in the consideration of clinical and cost-effectiveness.'
- ' … the placebo or non-specific effect … should be considered part of the treatment for which payment by an individual or the NHS may be appropriate.'
- ' … the test can become one of "usual treatment" against "usual treatment" plus complementary practice.'
- ' … any added benefit brought by the therapeutic relationship and the context for treatment should count as part of the treatment effect. For complementary therapies such a holistic approach to effectiveness should be adopted by bodies such as the National Institute for Health and Clinical Excellence.'

The report is also supported by a recent *BMJ* editorial.[7] Both outline an 'alternative science' for evaluating alternative medicine. They suggest that researchers should design studies which do not control for non-specific effects. If the results of a controlled clinical trial turn out to be positive because of placebo effects, Hawthorn effects, patient–therapist relationship, social desirability or concomitant therapies while the specific effects of the intervention are nil or negligible, this intervention would nevertheless be deemed effective and consequently it should be paid for by the NHS.[6,7]

The creation of such an 'alternative science' amounts to a significant step backwards in the history of medicine. Trial designs advocated in the King's Fund report and the *BMJ* editorial run a very high risk of generating false positive results.[6–8] If we adopt such 'alternative science', we will almost inevitably include an ever growing list of ineffective interventions into routine healthcare. In turn, this would render it not more but less effective.

The challenges alternative medicine present are by no means 'unique'.[6] Context effects are encountered in surgery, physical medicine, psychology and so on. The application of the standards of 'alternative science' to these fields would lead to absurd situations. For instance, a useless surgical procedure might pass as effective simply because of 'the therapeutic relationship and the context for the treatment'.[6] Surgeons too are capable of therapeutic relationships, and the context of an operation can certainly be impressive. If the surgeon manages to stimulate a patient's expectations and the procedure is sufficiently spectacular to generate a perceived benefit, no questions would need to be asked about the effectiveness of the actual operation.

The most lamentable effect of the creation of an 'alternative science' is that it delegates therapeutically valuable non-specific effects to alternative practitioners. Empathy, sympathy and time to listen, discuss and explain are, of course, core values of all good medicine. The report, however, seems to imply that they are 'unique' to alternative medicine.[6] This is wrong. Instead of

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hijacking these effects for alternative medicine, certain aspects of conventional medicine should be reconsidered and these elements should be reintegrated into routine healthcare, wherever they are missing.[9]

In conclusion, if alternative treatments are found to be ineffective in rigorous clinical trials, it might be possible to make them appear effective in less rigorous, pragmatic, studies.[8] This approach of creating an 'alternative science' for alternative medicine is, however, profoundly misguided. It threatens medical progress and lowers the quality of healthcare.

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EDITORIALS

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Community respiratory services

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Community respiratory services are not new. They have played an important role in the management of tuberculosis, 'the white plague', from the Victorian era to the present. The British Thoracic Society guidelines on the management of asthma, published in 1993, promoted the development of the 'specialist' asthma nurse whose role often crosses primary and secondary care boundaries.[1] The pioneering work of the acute chronic obstructive pulmonary disease (COPD) service in Glasgow showed that many acute exacerbations could be managed safely in the community.[2] However, government aspirations to move care closer to the individual combined with the key drivers of patients' expectations and demographics have accelerated the desire for better and more consistent quality and safety in the community.[3] Prioritising the care of people with long-term conditions aided by care plans, self-management and personalised support requires increased flexibility and mobility of staff.[4]

COPD has an increasing prevalence and mortality. In the UK around 900,000 people have been diagnosed with the disease but the majority remain undiagnosed. Wigan, an archetypal post-industrial northern town with a male smoking rate of 31.7%, has a COPD prevalence of 1.86%, similar to that of Birmingham but, in both places, and indeed nationwide, the true prevalence is of the order of 5%.[5] The average age at which COPD is diagnosed is 67, usually after many years of increasing disability and debilitating symptoms. Confirmation of the diagnosis should be byspirometry. However this relatively simple test remains a source of mystery to many.

Accurate spirometry supported by correct interpretation and quality control provides the foundation for planned care. The spread of competencies by a 'ripple effect' from 'hubs' of excellence in the community will lead to an increase in diagnosis. The diagnosis, once established, can open the door to pulmonary rehabilitation (PR), surely one of the most cost-effective interventions of the 1990s. Lack of access to PR due to funding and logistical problems, notably transport, needs to be addressed by well-costed business plans and a decentralisation of staff and resources. Multidisciplinary teams of doctors, nurses, physiotherapists, occupational therapists and, where available, psychologists can lead to the development of personal action plans. 'Packages' of therapy, including, when indicated, simple antibiotics and oral corticosteroids, aid

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