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RADIO SCIENCE UNIT

THE OTHER MEDICINE 2.

RADIO 4

TUESDAY 28/09/04 2100-2130

PRESENTER:

ANNA FORD

CONTRIBUTORS:

NANCY HOLROYDE-DOWNING
KATE THOMAS
IAIN CHALMERS
PETER MORRELL
EDZARD ERNST
ANDREW VICKERS
GEORGE LEWITH
HUGH MCPHERSON
RICHARD SMITH

PRODUCER:

RAMI TZABAR

NOT CHECKED AS BROADCAST

ACTUALITY - ACUPUNCTURE CLINIC

Okay so now I'm going to have a look first at your tongue, if you don't mind ...

I did brush it this morning.

That's quite good. Okay now can you tip it up, so I can see beneath and back down?
And back out again. Alright. So when you - when I look at your tongue I've noticed
three things when you put it out - one, it's somewhat pale, it's not desperately pale but
somewhat, it is somewhat wet - meaning it's not a dry tongue, it's not cracked, it
doesn't have a thick coat on it - and it's also somewhat swollen - it has little ridges
along the side. So all of these ...

FORD

I've come to see Nancy Holroyde-Downing [at](#) the Traditional Acupuncture Centre in
London. She's been practising acupuncture for 20 years and over the course of an hour

we tal

Britons using complementary therapy don't need convincing that they work - and by the way my leg cramps haven't returned since that acupuncture. But evidence is a slippery concept, which few in this field of research agree on.

MONTAGE

In every generation there are scientists who dismiss Newton, there are scientists who dismiss relativity and all the other theories that then become accepted later.

With complementary medicine the whole approach of it is about individualised care.

I think that's just a cliché - a tired cliché on top of it.

You can get any rubbish published, you just go down and down and down and down the food chain, as we call it.

You've got to be sophisticated, you can't treat acupuncture just as if it's some kind of drug.

It's a whole bogus question this thing about evidence - homeopathy works.

FORD

We live in an age of evidence-based medicine. It's the buzz word of the medical profession. It may sound like a tautology - I mean, if medicine is not based on evidence, what is it based on? But the fact is that estimates by the medical profession of the percentage of procedures that have been subject to scientific trials ttsc(i) Tj0 Tc (e) Tj-092 Tc (s) Tj0.3 7

THOMAS

The principles of a randomised controlled trial are that you allocate people to a treatment and compare it to another treatment or to a placebo fake treatment and that people are allocated at random, so that you don't influence the outcome by people choosing the treatment that they're getting. And you're looking for a difference between the two groups, at the end of the day, that you feel confident is not due to who was in the two groups but to the treatments that they actually received.

FORD

One of the earliest pioneers of the RCT was an 18th Century doctor called James Lind. His legacy lives on in the James Lind Library, which documents the evolution of fair tests in medical treatments. Its editor is Sir Iain Chalmers.

CHALMERS

The only defining feature of a randomised trial is the word randomised. You use a technique to try and ensure that you compare like with like. S792 Tc (s) Tj0.06 Tce.22416 Tc (t) Tj-0.06792 T

I believe I'm the true champion of complementary medicine because wherever it goes it will go only somewhere if it's based on science.

FORD

Edzard Ernst, as you might have guessed, is firmly in the science camp. The UK's first and until very recently, its only professor of complementary medicine, is based at Exeter University's Peninsular Medical School. He arrived here 11 years ago from Vienna, where he was in charge of a large well-funded and prestigious medical research department. But his arrival here attracted criticism and controversy before he'd even unpacked his bags. His department has produced about 800 research papers - many of which are reviews of other studies, on therapies as diverse as spiritual healing, acupuncture and mistletoe for cancer. So what has he found?

ERNST

The evidence so far is that complementary medicine doesn't defy proper science. A lot of people 10 years ago and some people even today would say that science shouldn't touch complementary medicine because it will destroy it, complementary medicine cannot be squeezed into the straight jacket of a clinical trial and so forth. I think that's just a cliché - a tired cliché on top of it. Perhaps some people mean that our outcome measures - blood pressure, cholesterol levels, pain or whatever - do not capture the whole patient, that I agree with but there are other and perhaps better outcome measures that we can use in parallel - quality of life for instance or simple patient preference.

FORD

Now critics say that most of your research comes up with negative results - are they right?

ERNST

It depends what you mean by most. It's probably more than 50%, so technically speaking most is the correct word. It's by no means all our research negative, I think we have contributed a lot of positive results to the field. But more importantly my only and most biting argument against that is what do these critics want me to do? Should I falsify my data? I'm awfully sorry that this work doesn't produce always positive results but that's science, everything else is not science.

VICKERS

You've got to be sophisticated, you can't treat acupuncture just as if it's some kind of drug. By the same token you can't treat surgery or psychotherapy or speech therapy or nursing therapy or a whole wide variety of different conventional medical techniques cannot be treated or researched as if they're some form of pharmaceutical.

FORD

Andrew Vickers was a bright young researcher when he left the UK to pursue his research interests in the United States, where he now explores the efficacy of CAMs in treating conditions as diverse as cancer and headache at the Sloane-Kettering Memorial Hospital in New York. Rigorous scientific enquiry he says, can go hand in hand with complementary therapy provided you go about it in the right way and ask the right questions.

VICKERS
Imagine you're a patient

all I was interested in - something that would cure me and I was very pleased that it did.

FORD

These stories of apparently miraculous cures come up again and again from patients who have responded dramatically to a CAM treatment. And until recently experiences like this were ignored by researchers or dismissed as anecdote not evidence, but do they have to be mutually exclusive ?

Research-practitioner George Lewith thinks not, and that more emphasis should be placed on patients' stories if we're to better understand the subtleties that might govern if and why a therapy is working.

LEWITH

One of the questions which would be very relevant to ask is what is it about

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FORD

This patient-centred approach to research isn't new but it's still rare says Iain Chalmers, who fears that research questions need to address the needs and concerns of the patient, as much as those of the researcher.

CHALMERS

Researchers left to themselves sometimes address questions which aren't important to patients and even if they choose a question which is important to patients they may not address it in a way that's helpful to the patients at the end of the line. One example is some comparisons of epidural analgesia during labour - pain relief during labour - with alternatives to epidural analgesia where out of about 12 trials only two asked women what pain they were experiencing during their labour and the researchers were into measuring things to four decimal places in the urine and in their blood.

FORD

It sounds quite extraordinary that they could actually overlook that this might be happening to a patient who happened to be a woman.

CHALMERS

It's quite extraordinary and that's why I think it's quite important for patients themselves to help researchers design better control trials, better research, asking sensible questions, important questions, regardless of whether those questions are of any interest to industry or not.

MCPHERSON

If we do artificial treatments then there's a very high risk we're going to show no effect. But if we trust practitioners and set up a trial that is modelled on good acupuncture then those risks are minimised.

FORD

Many CAM practitioners view researchers with scepticism and more than a little suspicion. But acupuncturist Hugh McPherson, who worked with scientist Kate Thomas in Sheffield, says practitioners have to get involved in order to ensure that research is based on therapies as they are practised in the real world.

MCPHERSON

Real practitioners, everyday practitioners, need to be involved in research in order to set the agenda and to argue for the sort of acupuncture that we do, rather than sit back, see other people doing research and of course there are a lot of people who have not very much idea about acupuncture, if we set up acupuncture trials because they perhaps have accessed a patient or they have a particularly good idea - Oh why don't we try acupuncture for such and such. And I think it's much better for us as practitioners to be involved because we can help guide which conditions we should be targeting first, how to treat them and set up a trial design which is going to show the sorts of benefits of our treatments.

THOMAS

It's a big risk for these practitioners. The back pain trial we were doing with acupuncturists was probably three months into the beginning of the trial when Hugh

McP

medicine. We've actually surveyed what medical charities dedicate to complementary medicine and what indeed the NHS dedicates towards research of complementary medicine, in both cases it's far less than 1%. Compare this with 25% of the population using it this is dismal, this is very disappointing.

FORD

In spite of the cost, thousands of studies have been published on a wide variety of treatments, in a range of journals. And yet for every study that says one thing, another seems to say the exact opposite. But then why should CAM be treated differently from the rest of science? There may be as, Edzard Ernst suggests, only room for a scientific approach when it comes to doing a trial, but interpreting the data is still controversial. More opinion than fact.

However, there's another shadow looming over the growing mountain of research papers. And that's the question of mechanism. Sooner or later, says Kate Thomas, when enough papers conclude that something does work, it still leads to the even bigger question - how does a therapy work? It's a scientific odyssey that has created and destroyed careers and is something we'll explore more closely in next week's programme.

MUSIC

THOMAS

That's the challenge for the scientific community really - how far do we need to know the precise mechanisms of action before we can accept the evidence that they seem to be working? And I suspect we're in for a bit of a challenge. The more we use conventional methods and demonstrate that complementary therapies are working and giving benefit the more we'll be called upon to answer the question about how and why.