Science learning from nature: Lessons from Complementary and Alternative Medicine (CAM) for conventional medicine

Rahul Barmanray, MBBS (Hons), BMed Sci

General Practitioner (GP): “What can I do for you today?”

Patient: “I had the flu two weeks ago and my joints and muscles ached the entire time. I’ve still got pain all over but I’m otherwise fine, so I wanted something done.”

GP: “Tell me a bit more about your symptoms.”

[Ten minutes pass]...

GP: “I’m convinced there’s nothing serious going on at this stage, the pain will resolve by itself with time, and some simple paracetamol will be all you need. Are you happy to go home, take paracetamol if the pain gets too much, and come back in two weeks if it hasn’t resolved?”

Patient: “Sure, that sounds good to me.”

GP: “If you have any other problems, as always just ring my receptionist to make an appointment.”

Patient: “Thanks, see you later.”

-----

Complementary and Alternative Medicine (CAM) Practitioner: “What can I do for you today?”

Patient: “I had the flu two weeks ago and my joints and muscles ached the entire time. I’ve still got pain all over but I’m otherwise fine, so I wanted something done.”

CAM Practitioner: “Tell me a bit more about your problems.”

[Twenty minutes pass]...

CAM Practitioner: “We’ve discussed your pain in the context of your life at the moment and agreed that it’s nothing serious at this stage but is causing you quite some discomfort, particularly at work. Of the options that we discussed — doing nothing, taking paracetamol when required, and acupuncture of the affected areas — which would you like to move forward with?”

Patient: “Well as you said it should just go away with time so I’m happy to just take paracetamol if I need it.”

CAM Practitioner: “Ok, would you also like to discuss ways of dealing with the stress you have at work and home at the moment?”

Patient: “Actually I’m late for work right now, but I’d love to hear more about that next time.”

CAM Practitioner: “If you have any worries in the meantime feel free to ring the practice. If I’m not free my receptionist will take a message and I’ll get back to you as soon as I can.”

Patient: “Thanks, see you later.”

SO WHAT IS CAM?

Complementary and Alternative Medicine, or CAM, is the most common name used to refer to “a group of diverse medical and health care systems, practices, and products that are not generally considered part of conventional medicine”¹. Common CAM therapies include acupuncture, chiropractic, homeopathy, naturopathy and traditional Chinese medicine (TCM), and can be used alongside (complementary) or instead of (alternative) conventional medicine. These and other CAM therapies have over recent decades been responsible for greater and greater health expenditure, especially in first-world countries². The important

continued next page
next question is of course why, to answer which we must go back many thousands of years, to before conventional medicine had even begun to be conceived.

WHERE DID CAM COME FROM AND WHERE IS IT NOW?

The oldest CAM therapies — complete medical systems such as TCM and Ayurveda — have existed for millennia. Developing in isolation in China and India respectively, they are based on the concept of two (TCM) or three (Ayurveda) vital forces. They propose that illness stems from derangement of these forces, with health achieved by specific physical procedures, techniques and natural substances that return these forces to balance. Newer therapies such as homeopathy and naturopathy developed independently in Europe over the last few centuries and are based on different beliefs of illness and health. But what all these therapies have in common is that they developed independently of conventional medicine, independent of each other, and espouse very different and in general simpler conceptions of illness and the body when compared to the modern scientific paradigm.

Though these therapies enjoyed their time in the sun for centuries, with the rise of conventional medicine, particularly following the introduction of the first publicly available medication aspirin in 1899, for most of last century, CAM therapies have largely been relegated to the sidelines. Yet the hippie culture of the 1960s, with its resurgent interest in mysticism, nature and alternatives to capitalist Western society, threw CAM a lifeline and brought it back into the limelight.

WHY IS CAM SO POPULAR?

It would be easy to explain away the popularity of CAM as a passing fad associated with a resurgent interest in nature, or as a by-product of increasing dissatisfaction with overburdened conventional healthcare systems. But with expenditure on CAM therapies increasing yearly and conventional medicine dissatisfaction having been summarily disproved as the reason, as a large United States survey attests, the answer lies further afield.

Consultation time

Perhaps the greatest gulf separating the practice of conventional medicine and CAM — other than the therapies themselves — is length of consultation time. One of the major drawbacks for users of CAM is that not only do consultations by practitioners on average take longer, the actual therapies themselves take significant time to deliver, such that total practitioner contact time is far greater than with conventional health professionals. This gives patients a sense of feeling valued, that they are able to spend so long a time with someone wholly interested in their health and wellbeing. It’s not a matter of CAM practitioners having more time to spare or necessarily caring more about their patients. In truth the minimum time required for CAM consultations is chief amongst the barriers to government subsidisation in public healthcare systems around the world.

Patient empowerment

A recurring theme when patients are asked about their reasons for using CAM is that of empowerment. Theories abound as to why this is the case, the most prominent being the relative simplicity of conceptions of health and disease in alternative compared to conventional medical systems, such that patients feel they understand the rationale behind CAM therapies better. It is hypothesised that the societal perception of the intellectual superiority of doctors plays a role, where CAM practitioners are seen as ‘ordinary people’ giving the patient more power in the relationship and thus increasing the popularity of CAM. Regardless, consumers of healthcare are increasingly rejecting the archetypal paternalistic ‘Doctor-as-God’ of the late 19th and early 20th Centuries in favour of the egalitarian health professional who favours individualism and restores the balance of power in favour of the patient.

Perceived safety

Side-effects are many patients’ biggest concern when receiving healthcare but this worry appears not to extend to CAM therapies. Given the relative age of CAM, therapies are often marketed as having been used by a certain group for millennia, with the implication that if it has existed for that long it must be safe. They are also seen as being natural — a perception practitioners encourage — and thus less likely and able to cause harm, despite many pill-based therapies ironically being manufactured on the same production lines as pharmaceuticals, most of which are themselves derived directly from biological substrates.

Perceived effectiveness

Despite the relative paucity of evidence on mechanisms of CAM therapies’ actions, when used for appropriate indications, CAM is effective. Examples backed by clinical trial evidence include acupuncture for nausea, St. John’s wort for depression, and gingko biloba for intermittent claudication. The majority of CAM therapies, however, either remain unstudied or have conflicting evidence surrounding them. Yet despite this, more and more
people are using CAM and claiming positive outcomes.

It has long been suspected that the beliefs of a patient regarding the therapy they are receiving are a strong determinant of treatment outcome. If this were the case then it would explain why clinical trials, which tend to control for patient expectations, would not detect the benefit experienced by CAM users who strongly believe in the effectiveness of the therapy they are receiving. When this notion was investigated in the context of a specific acupuncture intervention, it was shown unequivocally that positive patient expectations about a specific treatment improved outcomes, independent of general optimism about treatment.

WHAT CAN CONVENTIONAL MEDICINE LEARN FROM CAM?

Consultation time

Consultation time is one of the biggest challenges facing overburdened public health systems globally. There is much evidence suggesting that consultation time is correlated with patient compliance with therapy and thus outcome, and even the likelihood of medico-legal action in the event of an adverse outcome. There are clear financial and human resource barriers to increased consultation time in most conventional medical contexts, but that is not to say that they cannot be overcome.

It has been suggested that the majority of benefit from extra consultation time stems from greater personal contact with someone interested in the patient and their wellbeing. Thus one novel potential solution could be to enlist trained volunteer patient advocates. These advocates would be able to emotionally support patients in the majority of healthcare settings, including before and after consultations with health professionals, in hospital, and before major procedures or investigations. They would provide even greater uninterrupted support than CAM practitioners and tie in well with existing illness-specific support groups. While social workers would be better trained to serve in this role, social work tends to suffer from the same if not worse human resource issues as the medical profession.

Patient empowerment

Empowering patients is something conventional medicine has not only ignored but actively discouraged from its beginnings centuries ago until relatively recently, when modern individualism began demanding greater patient involvement in decisions regarding their own healthcare. More recently, the information revolution, led by free electronic databases such as Wikipedia, means patients are becoming more informed than ever about their own health. But curiously, rather than patients feeling empowered by being closer in knowledge to their clinicians, they are often frustrated by either the disconnect between the often incorrect or misinterpreted information they have procured online and either the process or outcome of their treatment. In turn, medical professionals’ bewilderment at the patient’s resulting non-compliance can cause them to react with more aggressive demands for compliance, often focussing on the negative consequences of failed treatment, unwittingly further reducing the patient’s empowerment and perpetuating the problem.

In this context, conventional medical practitioners can learn much from their CAM counterparts, where the latter tend to actively respect patients’ knowledge to a much greater degree. While many patients will not comprehend the specifics to same degree as their medical professional, empowerment is not purely a function of knowledge. Instead, the conventional medical system should urge practitioners to enquire of their patients’ understanding at every opportunity, correct where necessary, and encourage patients to seek information or clarification from their treating medical professional whenever required, as CAM practitioners tend to advance as a matter of course. To cope with the growing thirst for medical knowledge of patients, there is a growing body of doctor-authored literature demystifying medicine and the medical system for patients, which clinicians can encourage their information-hungry patients to read in the place of internet sources of uncertain veracity.

Perceived safety

With the rigorous trials that medications must go through before approved, followed by ongoing monitoring until production of the medication ceases, every effort has been taken to identify dangerous side-effects so as to avoid them in the patients who could not tolerate them. In fact, far more effort is put into ensuring the safety of conventional therapies with far higher standards than those applicable to almost all CAM therapies. Yet patients still perceive closely regulated conventional therapies as more dangerous than largely unregulated CAM.

The reason for this appears to be in approach; where CAM practitioners connect with patients primarily on an emotional level, conventional medicine engages intellectually, speaking to patients of trials, evidence and regulations, which while seemingly incontrovertible to doctors often means little to patients.

In this context too, conventional medicine can learn from the personal approach of CAM. Patients may be reluctant to talk about their concerns regarding medications or procedures. Medical professionals can pre-empt this by proactively asking patients if they have such concerns. Perhaps more effective, in that patients can relate to them more readily, are members of support groups who have experienced or are experiencing a similar situation. At present such groups tend to be patient-initiated and operate outside the health system, however, integration into the system would be very likely to improve their effectiveness. The health profession would ignore the value of patients themselves at its peril.

Perceived effectiveness

While the effectiveness of appropriate conventional therapies is rarely doubted, the manner in which CAM may be more effective in a subset of the population with particular health beliefs raises possible avenues for improvement in conventional medicine. Studies of CAM therapies, such as the investigation into acupuncture, suggest that greater belief in the effectiveness produces better outcomes. Belief can be increased by conscious
practitioner-provided information, which is already done to varying degrees by most medical practitioners, or by subconscious methods e.g. hypnosis.

Hypnosis was once thought to be too ethically fraught to use in medicine, but recent studies have shown it can be used safely with informed consent in the same manner as any other medical intervention. To date it has only been used to assist patients in thinking positively about their condition and so aid therapy as well as the patients' bodies' own adjustment and defence mechanisms against the disease. While such a practice is ethically uncontested, using hypnosis to cause a patient to think more positively on the effectiveness of their therapy raises more complex issues. Having been hypnotised into thinking the therapy will be more effect than their previous subjective feelings regarding the therapy, if adverse events occur the patient will be unable to make an unbiased decision regarding continuation or cessation of the therapy. They would thus rely upon their treating team to such a degree that exploitation would be possible, for example if their treating team had a financial interest in continuing therapy. However, the situation is less fraught than other contexts in healthcare, including the ethically accepted scenario of an anaesthetised patient being completely dependent upon their operating surgical team. If these issues can be resolved we may have a new non-invasive way to improve the effectiveness of existing conventional medical therapies.

CONCLUSION

As a rapidly growing healthcare sector, CAM has a lot to offer patients as well as the conventional medical system it operates alongside. CAM's effectiveness in putting patients at ease, empowering them and giving them a system they feel is safe and that they can trust, holds important lessons for conventional medicine. While there are numerous barriers to translating those lessons into the conventional context, with some novel solutions they can be implemented.

Patient advocates can help patients feel more supported through their healthcare journey. Doctors can build rapport and therapeutic alliances by clarifying their patients' understanding of their bodies and medical conditions. Better integration of support groups into the healthcare system can provide an empathic human face of medicine to patients. Hypnosis can be used in controlled settings to augment the effectiveness of other therapies.

Though CAM and conventional medicine have such different foundations, they share a common goal, that of helping patients to achieve health. Both systems would do well to learn from each other such that we, patients past, present and future, are the ones who will benefit.

References:
4. NIHSeniorHealth: Complementary and Alternative Medicine - Whole Medical Systems [Internet]. US, NIH Senior Health; [2012 May; cited 2012 May 9]. Available from: http://nihseniorhealth.gov/cam/wholemedicalestems/01.html