

THIS WEEK

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Break with tradition

The World Health Organization's decision to include traditional Chinese medicine in its global diagnostic compendium could backfire.

The growing appetite for traditional Chinese medicine (TCM) remedies has been bad news for the animals killed to make its ingredients. Demand has slashed the donkey population in China and helped to push species including tigers, rhinoceroses, sea horses and pangolins to the brink of extinction.

This situation is all the more troubling because there is little evidence that the preparations made from these animal products deliver the promised benefits. TCM is based on unsubstantiated theories about meridians and qi. Most Western-trained doctors and medical researchers regard TCM practices with scepticism: there is no firm evidence that most of them work, and some signs that a few do harm.

Signals about TCM from the Chinese government are contradictory. On the one hand, China advertises a belief in evidence-based medicine and has invested millions of yuan in programmes devoted to the modernization and standardization of TCM. That's welcome — but so far, these programmes have only given a veneer of legitimacy to treatments that have not been rigorously tested in randomized, controlled clinical trials. On the other hand, TCM is big business that receives strong government support. The government enthusiastically promotes TCM around the world, often on the back of its massive Belt and Road Initiative, and stifles criticism of TCM at home.

These mixed signals are now worryingly mirrored by the World Health Organization (WHO), which last week approved a new version of its International Classification of Diseases, a highly influential document that categorizes and assigns codes to medical conditions, and is

used internationally to decide how doctors diagnose these conditions and whether insurance companies will pay to treat them. The latest version, ICD-11, is the first to include a chapter on TCM — part of a warming to the practice under former director-general Margaret Chan. TCM practitioners have celebrated the chapter as crucial for the international spread of the system.

From elsewhere, criticism has rained down on the WHO. The organization has defended its position. In a statement on 4 April, it insisted that the TCM chapter does not discuss particular remedies. Rather, it is meant to give doctors the chance to diagnose patients using both TCM and Western medicine. These categories “do not refer to — or endorse — any form of treatment”, the statement says.

Traditional medicine should certainly not be dismissed: sometimes it is all that's available in many parts of the world. Some life-saving therapies have come from natural products, and there are doubtless more to be found. Even so, the WHO chapter on traditional medicine is likely to backfire. It is broad-ranging and detailed, and risks legitimizing an unfounded underlying philosophy. It might contain only diagnostic criteria, but once diagnosed with a TCM-labelled condition, people will probably be prescribed TCM remedies.

Everyone can agree on the desire to expand health care, and to do that in an evidence-based way. Collecting more evidence on TCM requires sustained and rigorous basic and clinical research to separate out harmful practices, those that have promise and those that have merely a placebo effect. That work is all the more urgent now. ■

Integrity for all

Considering research integrity to be confined to misconduct stops scientists from improving.

Start a conversation about research integrity and many researchers will assume you're talking about misconduct. Often, they are wrong.

Research misconduct encompasses fraud, fabrication and plagiarism. It is essential to deal with such dishonesty thoroughly and fairly (see page 27), but it's patching up a tear after the damage is done. Research integrity is about much more. It is about creating systems that boost the quality, relevance and reliability of all research.

The distinction is clear at the 6th World Conference on Research Integrity this week in Hong Kong. Yes, there are sessions on misconduct — but there are many more on improving science overall. The biggest impact on research integrity is achieved through sustained improvements in day-to-day practices — better record-keeping, vetting experimental designs, techniques to reduce bias, rewards for rigorous

work, and incentives for sharing data, code and protocols — rather than narrow efforts to find and punish a few bad actors. (Both are important, and sometimes the same policies can address both problems.)

The conflation of integrity and misconduct is problematic because it stops researchers from talking about ways to improve their work. Experts in quality assurance or stringent protocols sometimes avoid using words such as ‘rigour’ and ‘integrity’ for fear of alienating their colleagues by suggesting that their work lacks these qualities. One programme set up to encourage practices such as randomization and blinding in animal experiments was advised to change its name from a “research improvement project” to a “research optimization project”. This is ridiculous. No one should be arrogant enough to think that their research cannot be improved.

Conducting research with integrity, honesty and accuracy is something to which every scientist should proudly aspire. And it requires ongoing training for both early-career researchers and more senior faculty members.

The idea of informed consent is less than 100 years old. In the Nature research journals, checks for blinding and randomization are just over six. Expectations that data and code will be fully open are becoming mainstream. These are all examples of improving research integrity. We should acknowledge them, and seek more. ■