

Perspective paper

Is traditional medicine better off 25 years later?

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In this piece I have elected to take the view point of traditional medicine, to see what traditional practitioners have gained from the last 25 years of ethnopharmacological research, and what we as scientists can contribute in the next 25 years. My views are based on my experiences in South Africa during the years 1993–2002, so they may not be representative of the rest of the world.

1. Has ethnopharmacological research improved traditional medicine?

For ethnopharmacology as a science, the most important developments during the last 25 years have been the development of more specific and sophisticated bioassays and in the chemical field the new hyphenated HPLC-NMR-MS techniques hold great promise. Have these technological advances helped traditional medicine?

How often have we as researchers written in a funding application something about ‘improving traditional medicine’ along with the other goal of ‘finding a new drug’. How good have we been at the first goal?

In the last 25 years, a huge amount of work has been done on plants used in traditional medicine systems throughout the world. A small part is highly exciting, even leading to new western drugs, but the bulk is likely trivial in nature. It ends up on library shelves in M.Sc. or Ph.D. theses or in journal articles at best—often with a concluding statement that the research confirmed the traditional usage.

2. Traditional medicine versus western medicine

Traditional medicine has some strengths that western medicine is lacking, namely the holistic view of the patient’s

situation. In traditional practice, the psychological, spiritual and social aspects play a large role, and this holistic treatment can to some extent make up for the often weaker aspect, the medicinal treatment, when compared to western biomedicine.

This situation means that traditional medicine, which is closely linked with peoples’ cultures, is not going to vanish if and when western health care becomes available. A study from Kenya showed that patients had a clear sense of which diseases they would go to a western clinic for, and when they would visit a traditional healer (Van der Geest, 1997). In South Africa, traditional healers are flourishing in urban areas where western health care is available (Mander et al., 1997), thus traditional health practise is not dying out ‘when the young flock to the city and forget their culture’, as has been predicted.

We as scientists cannot meddle with the non-scientific aspects of traditional medicine, our role must be to help improve the medicinal aspect, the usage of medicinal plants. Healers might say that their ancestors guide them, they know all there is to be known, but I believe there is still place for new knowledge, which can be accepted by traditional healers.

3. Do we get information back to healers?

How many of the scientific findings ever find their way back to the healer out in the hills? Probably very, very few. Scientific articles are inaccessible and incomprehensible for traditional healers. From my own experience (in South Africa), I can say that we were not good at it. We did not know how to do it. The apartheid prohibition on traditional healing meant that there were 2–300 small healers’ organisations that did not work together on a national level. So we did not know who to speak to. This is obviously working a lot better in many other countries with stronger traditional healers’ organisations.

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Some excellent forensic work was carried out by Dr. Vanessa Steenkamp at two hospitals in Johannesburg (Steenkamp et al., 2000). She showed that a number of poisonings and fatalities at the hospital were due to patients having been given traditional medicine containing pyrrolizidine alkaloids. These alkaloids are hepatotoxic, and a single administration can be fatal. Several of the deaths occurred in children. Children were given the same dosage as adults, which resulted in mortality. This is a case of extremely important information – a question of life and death – that needs to get out to healers. The researchers at the time were not aware of reporting back the findings to the community, therefore it was not done (V. Steenkamp, personal communication).

It is necessary that there are structures in place that can channel the information out to individual healers. By and large the responsibility for this lies with the traditional healing community to form a strong healers' association that can facilitate the flow of information. Healers often feel exploited, scientists come and take information on their secrets, and they never receive anything in return. Many healers therefore cannot believe that scientists will actually help them, and before this (hopefully) misunderstanding is gone, meaningful cooperation cannot take place.

4. Do we have useful information for healers?

In the case of the toxic pyrrolizidine alkaloid containing plants, it is straightforward what we need to tell healers. The case becomes a lot more complex when we have tested a plant in one or another bioassay. We know that the plant extract had activity in the particular assay, but we really cannot say much more, especially whether it is toxic in some way. So we would not be comfortable recommending the use to healers. In fact, this is the problem with much of the research—it is small bits and pieces that cannot be used in the real world with real living patients.

5. What must be done?

In Africa, diarrhoea is the main killer of children under five, malaria also takes its toll. Other parasitic diseases like schistosomiasis and leishmannia are problems, as is something as simple as intestinal worms. The HIV epidemic with associated TB cases and fungal infections is now overshadowing all other health problems. Do the bioassays employed reflect the diseases of the poor populations, who are the main users of traditional medicine? We need to concentrate on diseases where large numbers of people will benefit from better traditional treatment.

I would like to appeal to authorities and university researchers especially in countries with traditional medicine traditions to sideline the chase of new drug leads, and rather concentrate on comprehensive toxicity studies of traditional medicinal plants and on clinical trials of single plants or remedies containing mixtures of plants. This will have to build on cooperation between traditional healers' organisations and authorities/researchers under the understanding that the aim is to benefit traditional healing by improving safety and efficacy.

Maybe we could all try to aim that our research have more than just academic value!

References

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