

Cultural and biological diversity in medical practice

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Modern medicine often fails to take into account the sociocultural and biological differences between communities. The need for a more inclusive approach to health care is increasingly apparent. The author outlines some of the salient factors to be considered and puts forward some suggestions on how to incorporate these in medical training.

In 1924, W.H.R. Rivers published a book called *Medicine, magic and religion* (New York, Harcourt Brace). It was an attempt to provide guidance for those interested in the diagnosis, treatment and classification of diseases in communities far from the Western world. This could be seen as a promising start, but subsequent medical doctors and anthropologists believed rather exclusively in the supremacy of Western medicine. In recent years, however, it has become apparent to many that disease control does not always depend on the use of biomedical science. For instance there is no fully scientific explanation for how acupuncture works, but its effectiveness for some disorders is widely recognized in the West. Likewise, people have become more aware of the limitations of modern medicine.

Different communities have different needs

In my own experience I have often been confronted with the need for a sociocultural approach rather than the strictly scientific one in which I was trained. An 18-year-old girl

who was studying at the University of Calabar, Nigeria, was once referred to me with violent spasms in her left thigh. This had been going on for two weeks by the time I saw her, and she was in a critical condition both physically and mentally. It was thought to be a neurological complaint, but neurologists who examined her in my presence found no physical disorder. We therefore diagnosed the case in psychological terms, as hysterical conversion. Unable to find any effective treatment, the doctor in charge recommended to the patient's mother that she should seek help from a traditional healer. She did this, although she herself was a strong believer in Western methods, in which she had been trained as a midwife. The traditional healer was successful, claiming that he had removed a poisonous insect from the girl's thigh, which he promptly showed her, whereupon she was cured. Such an explanation is quite unsatisfactory from a scientific point of view, but the outcome was good, and for most people – especially patients and their relatives – that is what counts.

It may be said that this preference for results rather than explanations is the central characteristic of clinical anthropology as it is practised today. Clearly, biomedical science does not have all the answers, and sociocultural

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approaches should be recognized by physicians. As a Nigerian I have often found myself too unfamiliar with my own culture to give patients the help they needed, for instance in disorders attributed to witchcraft. The “new breed” of African doctors trained in Western medicine seems generally uninformed about traditional beliefs (1). The formal teaching of clinical anthropology to medical students would surely go a long way towards correcting this deficiency.

Similarly, in heterogeneous Western societies like the United States and the United Kingdom, the need to know about various different ethnic groups and cultures is much more apparent now than it used to be. In these societies it is often possible to choose between several of the world’s different approaches to healing. At the same time, doctors who have alien patients need to know about alien cultures.

The use of biological data for diagnosis and treatment in different communities goes hand in hand with this need for sociocultural awareness. For example, it has been shown that fundal heights in pregnancy differ for White and Black women, and the use of data from one group for the other can lead to error (2). The mean weight of an adult male from the Niger Delta is 58 kg, whereas that of an adult male from Europe is 70 kg (3). It has also been shown that the blood cell counts of Africans differ significantly from those of Europeans, probably because of differences in diet (4). These differences have been related to macrophage mobilization after trauma or surgery, and keloid formation (5).

Medical education

Perhaps the most practical implication of these considerations is for medical education. By making these aspects of health better known to trainee doctors we can work

towards developing a more sensitive approach to patient care in the future. The following suggestions are made for medical school curricula.

In general, the training of medical students should include study of the culture in which they expect to practise, so that they have a better idea of when to take cultural and biological variations into account.

- Medical anthropology can be taught in the first year of medical school, to expose the student to the plurality of medical systems and the need for a sociocultural perspective. Subject areas could include the following:
 - traditional medicine;
 - hierarchy of options in medical practice;
 - culture-bound syndromes;
 - witchcraft and sorcery;
 - faith healing;
 - clinically applied medical anthropology.
- Clinical anthropology can be outlined in the introductory course on clinical medicine, in which the student usually learns about taking histories and conducting physical examinations. The subject can be broken down into its biological and sociocultural aspects. The biological side can focus mainly on gathering anthropometric data such as weight, height, waist and mid-arm circumference, and growth, together with their variations in different communities. The medical uses of dermatoglyphic data should also be taught, for instance in relation to sex chromosomal disorders. Teaching about sociocultural aspects of anthropology could be based on the work of writers such as Kleinman (6) and Weidman (7) on models and methods, and Lambo (8) and Yap (9) on “culture-bound syndromes”.

- Students should be encouraged to include anthropological data in their case notes and build up a special anthropological database. This is useful not only for diagnosis and choice of treatment but also for monitoring and maintaining compliance.

In recent years, it has become apparent that disease control does not always depend on the use of biomedical science.

This kind of teaching would help practitioners to work more effectively by taking anthropological factors into consideration in their day-to-day practice. It would give them a fuller understanding of the social and psychological aspects of medicine, and sharpen their skills in keeping records, taking histories and conducting physical examinations. In general, the training of medical students should include study of the culture in which they expect to practise, so that they have a better idea of when to take cultural and biological variations into account. ■

References

1. **Parry H.** The influences of culture. *World health forum*, 1984, **5**: 49–52.
2. **Ogunranti JO.** Fundal height in pregnant Nigerian women. *International journal of gynecology and obstetrics*, 1990, **33**: 299–305.
3. **Ogunranti JO.** *Clinical anthropology of weight. Discovery and innovation*, 1994 (in press).
4. **Ezeilo GC.** White blood cell count in healthy Africans. *Nigerian medical practitioner*, 1981, **2**: 73–78.
5. **Ogunranti JO, Ambakederemo AW.** A new understanding of keloidogenesis. *Nigerian journal of physiological science*, 1989, **5**: 159.
6. **Kleinman A.** *Patients and healers in the context of culture: an exploration of the borderland between anthropology, medicine and psychiatry*. Berkeley, University of California Press, 1980.
7. **Weidman H.** Research strategies, structural alterations and clinically applied anthropology. In: Chrisman N, Marezki T, eds. *Clinically applied anthropology*, Dordrecht, D. Reidel Publishing, 1982.
8. **Lambo TA.** The village of Aro. In: King M, ed. *Medical care in developing countries*. Nairobi, Lusaka, London, Oxford University Press, 1966.
9. **Yap PM.** Mental diseases peculiar to certain cultures: a survey of comparative psychiatry. *Journal of mental science*, 1951, **97**: 313–327.

Urban problems persist

The problems observed in cities 150 years ago are all to be found today, on a much bigger scale and with much worse consequences. However, some things are different; science has provided some remarkably effective tools, such as immunization and family planning methods which, if made available to populations and properly used, can help prevent a vast amount of human misery, ill health, and loss of life.

- *The urban health crisis. Strategies for health for all in the face of rapid urbanization.* Geneva, World Health Organization, 1993: p.2.