

# Rational Use of Medicines, Pharmacology and the Medical Humanities

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**R**ational use of medicines has been defined by the World Health Organization (WHO) as 'Patients receive medications appropriate to their clinical needs, in doses that meet their own individual requirements, for an adequate period of time, and at the lowest cost to them and their community'. Teaching medical students how to use medicines rationally is an important goal of pharmacology and pharmacotherapy. Medical humanities have traditionally included subjects like the Medicine and the Arts, Philosophy of Medicine, History of Medicine, Medical anthropology and Medical sociology among others. In this article, the author aims to explore the connections between rational use of medicines and the Medical Humanities.

#### **Medicine use behavior:**

Medicine use by an individual can be influenced by factors in the household, community, health institution, national and international levels.<sup>1</sup> Literacy, previous experiences, cultural beliefs, and structure of society all shape medicine use behavior. Thus studying medicine use can serve as a wonderful introduction to medical anthropology and medical sociology. These two subjects can then be taken up in greater detail.

#### **Methods to study medicine use:**

Semi-structured interviews, focus group discussions, structured interviews and observation techniques are used to study medicine use. Students can start by interviewing the patient about something concrete like the medicine use pattern. As they become more familiar with the interview techniques and develop a rapport with the patient they can begin to explore the more intangible characteristics. Cultural background, personal factors and family factors influencing drug use can serve as an introduction and a stimulus to probe deeper into sociology and anthropology. This can also serve as an introduction to the psyche and mind of the patient and can be used to explore the effects of illness on the patient. Patient narratives are an important part of the medical humanities and pharmacology can serve as an introduction.

#### **Quality of life and compliance issues:**

Drugs can cause adverse effects. Certain drugs are more toxic than others. Adverse effects can affect the quality of life of the patient. Compliance or concordance with treatment is an important issue. Polypharmacy, complicated dosage regimens, personal and social factors can influence compliance. Too many drugs, old age, loss of memory, and adverse effects are important themes in the humanities.

#### **Pharmaceutical promotion:**

Aggressive pharmaceutical promotion is a common phenomenon in most countries. Aggressive promotion can lead to inappropriate and irrational use of medicines. Ethics is an important component of the Medical Humanities. A study of the methods used for promotion and the impact of the targeting of prescribers by the pharmaceutical companies can serve as an interesting prelude to the ethics.

#### **Disease mongering:**

What is health, what is disease? When does a patient require treatment? What is normal, what is pathological? Disease mongering or the creation of a disease is becoming an important issue in the rational use of medicines. Disease mongering can turn ordinary ailments into medical problems, can see mild symptoms as serious, can treat personal problems as medical ones, can see risks as disease and can frame prevalence estimates to increase potential markets.<sup>2</sup> This can raise more fundamental questions.

#### **Drug abuse:**

Drug abuse and the non-medical use of drugs can be used to explore a number of topics in the Medical Humanities. Drives for drug use, spiritual factors, effects of a drug on the individual, family and society, non pharmacological methods to wean a person from drugs and to prevent relapse have implications for the humanities.

#### **History of Pharmacology:**

The history of pharmacology is an important part of

the history of medicine. Drugs used by different cultures around the world and the continual improvement in the science of pharmacology can serve to introduce students to the history of medicine.

#### **Clinical trials:**

Clinical trials are commonly carried out these days. Clinical trials form an important source of information for the rational use of medicines. The issues of informed consent, patient autonomy, liability for injury, financial inducements and the doctor-patient relationship are important ethical issues which can be explored through clinical trials.

#### **Communication skills:**

Communicating with the patient effectively, empathically and using simple language is another objective of the Medical Humanities. Communicating drug and non-drug information to the patients is an important skill in Pharmacology.<sup>3</sup> In our institution, the Department of Pharmacology teaches communication skills during the first four semesters of the course.<sup>4</sup> This can be expanded during the Medical Humanities course to include breaking bad news, obtaining informed consent and other issues.

#### **Cost of and access to medicines:**

Medicines are an important component of the health care budget in many countries. During pharmacology students learning are taught to consider the cost of medicines while making treatment decisions.<sup>3</sup> Essential

medicines play an important role in health care and access to essential medicines is a basic human right. Deprivations of health care, access to health care, insurance and financing mechanisms, and human rights are topics which can be explored using this introduction.

Thus pharmacology and the rational use of medicines can serve to introduce a number of topics in the Medical Humanities. Medical educators can consider this link to give students an idea of the humanities, especially in countries where formal courses on the subject are lacking. In countries with strong medical humanities programs, the link can serve as a relevant and practical introduction to the subject.

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