## THE ART AND SCIENCE OF MEDICAL PRACTICE

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### MODERN MEDICINE AND THE REALITY

- The practice of modern medicine is the application of science, ideal of which has the objective of value-neutral truth.
- Practice varies widely between and within national and medical communities.
- Neither evidence from randomized controlled trials nor observational methods can dictate action in particular circumstances.
- Their conclusions are applied by value judgments that may be impossible to specify in 'focal particulars'.
- Herein lies the art which is integral to the practice of medicine as an applied science.

### THE ART OF MEDICINE: WHAT IS THIS?

- Its focus s the patient defined as a fellow human being seeking help because of a problem relating to his or her health
- From this emerges the comment that for medicine as an art, its chief and characteristic instrument must be human faculty.
- We are offered the ability to listen, empathize, inform and maintain solidarity: for the doctor, in fact, to be part of the treatment.
- They describe, firstly, moral dimensions to care we listen because of respect for persons and so on: secondly, skills.
- Interpersonal skills may be frequently lacking, just as technical skills may be. But they can, at least, in principle, be observed, taught, tested, their value assessed, just like any practical technical skill.

#### CONT.

#### Attitude

- While these may be more dependent on our up-bringing and personalities, attitudes can be changed with education or appropriate legislation, can be observed and scored, can be evaluated in their contribution to patient care or diagnostic technique, at least in principle and even if these are crudely done.
- One must embrace humility as a doctor

### THE SCIENCE OF MEDICINE

- Palliatives and procedures have been shown by science to be effective.
- Practice is based on science and on training that is supposed to teach doctors to apply scientific knowledge to people in a rational way.
- Medicine, as we practice it today, is an applied science.
- Applied science is nothing but the application of pure science to particular classes of problems
- No one can safely make these deductions unless he or she as a firm grasp of the principles.
- Medical practice depends on generalizations that can be reliably applied and scientifically demonstrated
- In the accumulation of such knowledge, doctors like engineers share experiences individually through meetings and publications.

#### CONT.

- The science of medicine is knowledge that can be publicly tested
- In its methodology, scientific thinking should be insulated from all kinds of psychological, sociological, economic, political, moral and ideological factors which tend to influence thought and life in society.

#### VALUE-NEUTRAL TRUTH

- Science is not insulated form outside factors
- Such factors are not integral to it social context, for example.
- Doctors are, of course, enmeshed in the obligations and responsibilities of their profession
- Such responsibilities may extend from the individual patient, to the health care system, or to society as a whole.
- Their role as technologically trained practitioners, according to the canons of standard empiricism, does not exclude them adopting other roles as a consoler, healer etc.
- There is no logical bar to combining several roles.
- Many doctors like to bask in the reflected glory of medicine as scientific undertaking that transcends national parries
- The international pharmaceutical industry, the vase number of international academic meetings, the ever increasing number of international specialist societies even the WHO itself are all evidence.

#### CONT.

- Fashion is another powerful influence.
  - One could make similar comments on treatments or investigations

#### **BAD - SCIENCE**

- It is science based on poor evidence, insufficient evidence or dogmas without evidence
- And its practice is bad medicine; bad medicine pressured by the degree to which disease is the sustenance of TV dramas etc.

#### RANDMIZED CONTROLLED TRIALS?

- This has been a powerful instrument of furthering medical knowledge and, of course, a doctor should know it results, but it is often not enough in recommending treatment for this patient.
- The double-blind, RCT is an experiment:
  - But experiment may be unnecessary inappropriate, impossible or inadequate.
- A RCT is not suitable in a rare condition, if people refuse to participate or if there are ethical, legal or political obstacles.

#### OBSERVATIONAL METHODS

- These include:
  - COHORT & CASE CONTROL STUDIES

#### THE BALANCE

- Good doctors use their personal judgment to affirm what they believe to be true in a particular situation.
- Their knowledge is not purely subjective, for they cannot believe just anything; and their judgment is made responsibly and with universal intent.
- Medicine is practical wisdom
- Medical practice demands such judgments on a daily basis.
- Therefore, medical practice as an art and as a science merge.

#### TYPED BY DR. E. NAILAH

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