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„Mentor and Trainee in clinical academic medicine”

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If Hippocrates were to take the entrance exam in medicine today,

- he certainly would not pass it.
- he would also fail examination in surgery with me.

But if he is still recognized as the father and patron of medicine, including surgery,

it is only because he left behind a large body of thought still relevant today.

Thoughts.
Those are what assured his eternal memory through all the generations.
Clinical medicine as a science

The concept of clinical medicine is not clear-cut, because:

*it embraces the realms of the exact*

- sciences, biology,
- clinical sciences, art,
- craft, magic,
- superstitions, law,
- organization, economics,
- ethics.
Clinical medicine is a scientific discipline. However, it can be judged both as a science and as a separate practice, because it is sometimes difficult to separate what is scientific and what is clinical, practical activity.
The achievements of scientific thought in the field of medical science in themselves would be “empty” without the application of research results in clinical medicine,

while practical medicine in itself, without integration with fundamental sciences,

would be “blind”.

Thus these two aspects of medicine are inseparable from one another
"Medicine, and especially clinical medicine,
is different from the several other branches of science,
because its immediate object of study is man.
Man is the object,

but he is always the subject of medical research.

This is also why if we want to consider the problem of education, and thus also medical progress,
these two elements become closely bound together by a thread of moral interdependencies.
Therefore, every mentor of a young academic and all institutions

- dealing with the teaching of and research into medicine must **understand**
- these multidimensional, multifaceted, and multilevel aspects of their activity
- and give them due regard in the educational process.

I have always maintained:

that „one cured patient has the value of a scientific discovery”

if the treatment was not conducted in a strictly routine manner, and it never should be.
Academic institutions

should educate the individual and organize the life of the whole academic community such that each person in the community is aware of their responsibility to their vocation, profession, society, the individual student, the patient entrusted to them, and to themselves.
The university education of students and physicians has a great multitude of goals.

To teach
- how to acquire and transmit knowledge,
- teach creative (and not imitative) thinking,
- instill the necessity of continual study,
- help in formulating moral principles,
- "spot" talents,
- open the horizons of world medical thinking,
- create conditions for social activity,
- assure participation in a wide range of intellectual activities.

Teach thinking!
In clinical medicine, the methods employed for transmitting knowledge and experience directly reveal great educational potential.

...these are provided by teacher and the patient.

Talking to the patient is one of the most effective methods of acquiring medical knowledge.

From these conversations one can attain knowledge and experience which books are not able to provide.
on what principles

should a school of higher education or an academic center function and within them, the teachers, the educators of young medical staff.

It turns out that the medieval principle "Universitas magistrorum et scholarium", and thus the corporation, the community of teachers and students, has not lost any of its relevance and value today.
Knowledge, the raw material of thinking, can be acquired from books.

- The most important task of an academic institution, and thus also of the scientific tutor, is to teach the students to think.

“Learning without thinking is effort in vain, but thinking without learning can be dangerous.”
The chief values which should be transmitted are **truth and freedom**, because the science ends where the freedom to seek and voice the truth ends.

The science also ends where only appearances of the truth are created, and thus sham research is conducted.

(\textit{limits of science: appearances, misconduct, money})

„truth did not do as much good as its appearances did evil”
Responsibility

At the same time, the task of a school and the individual mentor is to teach the trainee to distinguish personal freedom from a lack of the feeling of responsibility.
It is obvious that a teacher can only transmit the knowledge he has acquired and only those values which he himself cherishes.

If the teacher wishes to be a model and shape the personality of his pupils, then he must undertake the effort to perfect himself as well..

„Verba docent, exempla trahunt”,
(words teach, examples attract)
"insufficiently tutored teach",

...educational processes are often submitted only to formal evaluation and regulation by the university. ...situation is tragic, in its far-reaching consequences, in which the "insufficiently tutored teach",

...and this usually involves those who are convinced of the excellence of their scholarly, professional, and moral perfection.

There is thus no training the trainees without training the trainers, especially that professors and other academic teachers inherit and acquire the flaws of the times they live in.
The greatness of a teacher is measured, consequently, by the greatness of his pupils.

The young trainee must mature under the watchful eye and the direction of his academic master and thus evolve from the stage of being able to acquire knowledge to the stage of being able to create it, that is he must learn to think independently and responsibly.
Both physician and teacher, and especially physician-teacher, are not only professions, but also callings. 

....duties extend far beyond the tasks set by regulations.

One cannot fix the amount of kindness, patience, understanding, and desire to teach required of a teacher.

Regulations and orders do not work where there is no desire and good will.
For the student, the best model for shaping his personality is always the personal example of the teacher:

- full of dedication,
- responsibility,
- and day-to-day concern about the patient,
- and in particular
- while conducting clinical research.
physician-teacher is burdened with duties towards the patient under his care as well as his trainee. ..... collision of commitments to the patient, the trainee, and the student, ..... arise personal problems which I solved by establishing a hierarchy of priorities, usually in the order of "first the patient, then the student, and lastly the assistant."
physician-teacher

must be able to transmit values which cannot be formulated as commandments, instructions, or legal articles.

Therefore he must also be able:

- to transmit his enthusiasm for work and learning,
- to create incentives to learn, to ask questions
- to take up ensuing scientific challenges.
The process of education cannot consist exclusively of transmitting scientific facts. One must concentrate rather on teaching

- skills in acquiring knowledge and on "how to learn",
- not on the memorization of encyclopedic and bookish knowledge.

…..but is not allowed to learn medicine from one's own mistakes, which is why "textbook knowledge" should surely not be belittled.
physician-teacher

.... very serious task is, through their own example, to transmit skills in conducting discussions.

Discussion cannot be a quarrel.

...it should be dialog in which the participants

➢ want to learn something from each other, and in this way improve themselves

➢ and strive for the truth together.
physician-teacher

The best way to increase the medical and scholarly qualifications of trainees

- is to conduct joint research work
- which includes the youngest of the academic assistants and students.
A scientific worker is evaluated according to two categories: scholarship and ethics.

His authority does not result from formal titles. He can neither decree nor force it.

It should result from hard-won achievements.

But students are able to assess the personality and the scholarly and moral value of their teachers with ease and exceptional precision.
Students and trainees

...want teachers who attained their positions not through pseudo-scientific cunning,
- or political nomination,
but who obtained significant results through
- efforts of their will,
- ideas,
- actions consistent with the ethical principles of the scientist and the physician.
but.....great scientific personalities

...can paralyze the self-development of the student.

„In the shadow of large trees, the young ones usually become dwarfed”.

- ....may hamper the independent development of the pupil.
- It also happens that academic teachers exploit students and young scientific staff as cheap labor for realizing their own scientific ideas.
A further danger is

- that the "teacher's greatness" may consist of an unusual talent to transform himself into a manager
- for the production of academic titles
- and the acquisition of grants.

In all cases one cannot allow the development
- of an inflexible hierarchy
- and an artificial cult of appointed authorities.
The fundamental duty of the trainee

.....is best expressed in a prayer by Maimonides about

➢ "the insatiable love for knowledge" and
➢ "the strength, will, and opportunity to spread one's knowledge".
The central thought of Maimonides’ prayer can be extended, with a little exaggeration, in the statement that: „one is either an autodidact or an ignoramus”, because the efforts of even the best teacher cannot compensate for a pupil’s lack of scholarly passion. Students must become convinced that the work they carry out in the future will not be simply "professional craftsmanship", but "Creativity".
Trainee

- must learn to be intellectually independent with regard to every aspect of life.
- He must be courageous both in expressing doubt and his own new concepts.

Certainly many of the ideas that students and scientists have had did not see the light of day because their authors had no faith in themselves and did not want to or were simply ashamed to present them publicly.
The mentor - trainee relationship

- according to the "father - child" model
  - during undergraduate study and in the first period of independent scientific and/or medical activity

- on the principle of partnership
  - The tutelary model should gradually transform into an advisory arrangement

  provides the greatest possibilities of the trainee's individual development

  is encouraging and creating the conditions for intellectual and medical initiatives and activities,

  as well as help in finding alternative solutions.
the specific training tasks

- in the realm of clinical medicine is to prepare the trainee to solve daily problems in which there is a
  - conflict of interest
  - between the good of the individual patient
  - and the good and needs of a community.
- The whole process of education must be based on respect for the human dignity of the patient
- the ability to assess, balance, and select values particularly in conditions of poverty, causing difficulty in meeting demands
Democracy

- both science and art represent a complete antithesis to democracy
- the question arises whether the organization of scientific life, and the mentor-trainee relationship, may be based on democratic principles?
- neither moral principles nor scientific laws are established by way of a vote.
- democratic procedures in the organization of academic life guarantees reaching a crisis in science camouflaged with mediocrity
Democracy

- The strength of democratic mediocrity is great !!!.
- Democracy contributes to the intellectual impoverishment of the scientific community.
- Therefore the mentor-trainee
- and the school-student relationship
- cannot be democratic.
- Consequently, procedural, and therefore superficial, democracy renders the conception and growth of a scientific and intellectual elite impossible.
education is the teaching of responsibility.

the chief values which the school and the teacher should impart

are truth and freedom.

One must also be aware that the contemporarily formulated moral principles teach people to accept the evil which is so artfully and deviously called the lesser.
The drama of the human greatness is to have a free choice between good and evil and possibility evil nominate as good.
Key words for presentation:
To teach!
- thinking
- how to learn
- apply the knowledge
- responsibility
- truth
- freedom
- dignity