

Chapter 2: The Development of Scientific Medicine

Definitions:

1. supernatural explanations of disease:
[Answer: Diseases are caused by the direct intervention of a god or spirit or indirectly through a sorcerer; disease occurs when some foreign object is introduced into the body and is cured when the object is forced out.]
2. the “germ theory of disease”:
[Answer: 2. All disease is caused by specific etiological agents such as bacteria, viruses, parasites, genetic malformations, and chemical imbalances.]
3. The Great Trade of 1910:
[Answer: In exchange for providing the best and most efficient health care system, the federal government gave the AMA control over the production and licensing of physicians.]
4. Paul Starr’s term, “cultural authority of medicine”:
[Answer: The awe and respect with which the general public holds medicine; an acceptance of medicine’s definitions of reality and judgments of meaning and value as valid.]

Identifications

5. A highly respected individual who served as the “medicine man” or “witch doctor” in early societies. Due to systematic observations of animals and trial and error techniques, this person often delivered helpful medical treatment.
[Answer: shaman]
6. A main part of the Indian medical care system; it posits that life and health are not predetermined, and life can be prolonged by human effort.
[Answer: ayurveda]
7. A Greek physician of the 4th and 5th centuries B.C. who sought natural rather than supernatural explanations of disease and who wrote extensively on ethical issues in medicine; the “father of medicine.”
[Answer: Hippocrates]
8. Universities began to play an important role in the education of physicians during the second half of the Medieval Era. What name is given to medicine during this time period?
[Answer: scholastic medicine]
9. The name of the study published in 1910 that provided an analysis (and much criticism) of medical schools in the United States and Canada; it was the impetus for significant change in medical education.
[Answer: the Flexner Report]

Multiple Choice

[*Answer]

10. People in early human civilizations commonly believed that the cause of disease and illness was traceable to:
A. tidal forces and other massive movements of water.

- B. the alignment of the planets within the solar system.
 - C. the direct or indirect intervention of supernatural beings.*
 - D. germs transferred to humans by wild and domesticated animals.
11. Curative procedures in early civilizations often were designed to force some foreign object out of the body. Which of the following specific procedures were used?
 - A. artificially inducing the patient to vomit
 - B. draining blood from the body
 - C. carving a hole in the skull
 - D. all of the above*
 - E. only a and b
 12. Who was the African engineer, architect, scribe, priest, and physician who made many contributions to medicine around 3000 B.C. and is known as the “historical father of medicine”?
 - A. Imhotep*
 - B. Hannibal
 - C. Hammurabi
 - D. Galen
 13. The identification of the factors that influence human health and disease as including “naturals” and “non-naturals” occurred in which civilization?
 - A. Egyptian
 - B. Mesopotamian
 - C. Indian
 - D. Islamic*
 14. With which of the following advancements is Hippocrates associated?
 - A. the principle of natural rather than supernatural explanations for disease*
 - B. the circulation of blood within the body
 - C. the demonstration that the humoral theory of disease was incorrect
 - D. all of the above
 15. Which of the following statements accurately describes the Hippocratic Oath?
 - A. A large section of the Oath describes the importance of the relationship between physicians and their apprentices.
 - B. The Oath contains several specific promises made by physicians to their patients.
 - C. In Hippocrates’s time and now, the Oath is considered a sacred pledge and physicians try never to deviate from its guidelines.
 - D. Only a and b are correct.*
 - E. Only b and c are correct.
 16. What were the major contributions of ancient Rome to medicine?
 - A. sanitation and public health*
 - B. reflections on ethical issues
 - C. medical technologies
 - D. research on human cadavers
 17. What was the most significant occurrence in medicine during the Medieval Era?
 - A. an acceptance of science as the best course to understanding disease and illness

- B. an acceptance by governments of their critical role in financing medical research
 - C. the establishment of hospitals as the primary site where physicians practiced
 - D. a rejection of scientific medicine and a return to religious explanations for disease and illness*
18. The second half of the Medieval Era runs from approximately 1000 A.D. to 1500 A.D. Which of the following did not occur during this era?
- A. a series of devastating epidemics
 - B. a strong belief in astrology
 - C. the establishment of medical education in universities
 - D. all of these things occurred during this time period*
19. In the late 1700s, understanding of the causes of disease and illness was not much more advanced than 2,500 years earlier. Then, Giovanni Morgagni made a critical discovery: diseases could be traced to particular disturbances in individual organs. By what name is this understanding referred?
- A. the germ theory of disease
 - B. the anatomical concept of disease*
 - C. the cellular basis of disease
 - D. none of the above
20. The usefulness and necessity of hospitals was an outgrowth of the forces of industrialization and urbanization (which created unhealthy, unsanitary, overcrowded cities). In what century did hospitals emerge as major care centers for the sick?
- A. the 12th
 - B. the 17th
 - C. the 19th*
 - D. the 20th
21. The germ theory of disease is primarily credited to one man, now referred to as the “father of modern medicine.” Who is this French chemist?
- A. Jacques Lister
 - B. Edward Jenner*
 - C. Louis Pasteur
 - D. Pierre Aspirine
22. Which of the following statements accurately describes physicians in early America?
- A. There were few physicians and many of these were not formally trained in medicine.*
 - B. There were few physicians but those in practice were highly educated and had completed a stringent medical curriculum.
 - C. There were many physicians because much of the medical profession in Europe had migrated to America.
23. Through the 1700s and into the 1800s, physicians were poorly paid (and sometimes not paid at all). Which of the following factors helps to explain this pattern?
- A. Many people preferred family medicine.
 - B. There were so many physicians, none saw very many patients.
 - C. Many patients could not pay for care received.
 - D. All of these factors help explain the pattern.*

24. Which of the following statements accurately describes the origin and early years of the American Medical Association (AMA)?
- A. The AMA was founded in the mid-1700s—just prior to the Revolutionary War.
 - B. The AMA was formed only when the federal government demanded that physicians form a professional association.
 - C. There was considerable sentiment in the country against legitimating any particular medical orientation—thus it was many years after its founding before the AMA acquired any real strength.*
 - D. All of these statements are accurate.
25. Which of the following events was extremely important in the AMA developing into a strong professional association?
- A. the knowledge created by the germ theory of disease
 - B. the successful battle to require medical licensure
 - C. the drive to improve medical education in America
 - D. all of the above were important factors*
26. According to Paul Starr:
- A. the advancement of science is the only factor necessary to explain the professionalization of medicine in America.
 - B. the advancement of science is one factor in understanding medicine's professionalization, but social authority (for example, laws protecting medicine) is also important.
 - C. the advancement of science and social authority are important but cultural authority (people believing in the legitimacy of medicine) is the crucial component.*
27. Which of the following statements most accurately summarizes Vicente Navarro's position on the rise of medical authority in America?
- A. The rise of medical authority occurred because powerful societal groups arranged for that to occur so that they would personally benefit.*
 - B. The rise of medical authority occurred because powerful societal groups persuaded the general public that it would be in their best interest.
 - C. The rise of medical authority occurred because a majority of Americans perceived that to be in their best interests.

Essay Questions

28. Summarize the most important aspects of Hippocrates' philosophy and understanding of medicine. Discuss the level of acceptance of Hippocrates' ideas during: 1) the Medieval Era, 2) the late-nineteenth century, and 3) today.
29. Identify and discuss: 1) the most important reasons why the occupation of medicine carried little prestige in colonial America, and 2) the key factors that transformed medicine into a much more prestigious field.
30. Compare and contrast the explanations provided by Paul Starr and Vicente Navarro for the ascendancy of medical authority in the United States.