

History of Medicine

The Jewish contribution to medicine

Part I. Biblical and Talmudic times to the end of the 18th century

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Summary

Jewish interest in medicine has a religious motivation with the preservation of health and life as religious commandments in the Holy Scriptures. Despite a basic belief that God caused disease and effected cures with physicians as agents, Jews accepted the rational medicine of ancient Greece. They assisted in the spread of these teachings in the Roman and Arab empires but carried them to the rest of Europe in their migrations. Jews were able to bridge the educational gap of a 500-year period of exclusion from universities and medical schools in the Middle Ages through the Talmud, which started as a commentary on the scriptures in the 5th century BC, but developed over the centuries into a comprehensive body of learning incorporating law, art and the sciences.

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Medicine has over centuries been a favoured profession for Jews. Their contribution to the art may be gauged by their forming 30%¹ of Nobel Prize winners for medicine while constituting a fraction of 1% of the total world population. Garrison,² Talbot,³ Roth⁴ and the *Encyclopaedia Judaica*⁵ were consulted for Jewish identification. The latter authority includes those of 'Jewish origin', since in late 19th century Germany it

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was commonly required that Jews submit to baptism before academic or government appointment and it needed the influence of a mentor of the status of Virchow in the case of Cohnheim or the brilliance of an Ehrlich to overcome this obstacle. Indeed, episodes of adversity have characterised the practice of Jewish medicine, particularly a 500-year period in the Middle Ages when universities and medical schools were closed to them. Nevertheless, Jewish interest in medicine was sustained over the centuries.

The progress of medicine

The principles of modern, rational medicine started in Greece 2500 years ago under the influence of Hippocrates (460-375 BC). Previously disease was regarded as having a supernatural cause; possession by demons or punishment by the gods. The school of Hippocrates dissociated magic from medicine in cause and cure and introduced the observation and the recording of cases. Despite the simple theoretical basis of Greek medicine — that disease was caused by a defective state of the body fluids (humours) — the treatment of patients was logical and sensible, it paid attention to lifestyle, and was guided by an ethical code. The teachings of Hippocrates formed the basis of medical practice until 200 years ago.

Greek medicine became known to Jews at about the time of Alexander the Great's conquest of the Middle East in 300 BC. The Greek hegemony fell to the Romans, who dominated the Mediterranean region until AD 500. Rome adopted Greek medicine, used its physicians and spread its principles in the empire. The Arabs, who occupied the Mediterranean littoral from the 7th to the 13th centuries, also accepted and spread Greek medicine. This Muslim influence occurred concurrently

with the Middle Ages in Europe during which Christianity dominated all aspects of life. Disease was considered a punishment for sin and life a journey of suffering to be endured and rewarded with the bliss of an after-life. Medicine in Europe reverted to the supernatural with major reliance on prayers, charms, amulets, saints and relics for healing. The Church started universities, e.g. Bologna in 1158 and Oxford in 1167, primarily for the education of monks and priests. Gradually lay scholars entered the universities and created opposition to the Church's exclusive right to knowledge. So began a pattern of cultural change — the Renaissance — from the 16th century onwards. The spirit of enquiry, which started in ancient Greece, was revived with certain centres advancing particular fields, e.g. Leyden in the 18th century for bedside teaching, Paris in early 19th century for autopsy study and Berlin in the late 19th century for the basic medical sciences and infectious disease; it was here that Jews played a significant role.

Jewish motivation in medicine

This has its origins in religion. Disease is described in the scriptures as an expression of the wrath of God, who also heals. 'If thou wilt diligently hearken to the voice of the Lord thy God, and wilt do that which is right in His eyes, and wilt give ear to His commandments, and keep all His statutes, I will put none of the diseases upon thee, which I have put upon the Egyptians; for I am the Lord that healeth thee' (Exodus 15: 26). Disease was treated by moral reform, prayers, animal sacrifice but also with the aid of physicians. They were regarded as an instrument of God in healing. 'Honour a physician with the honour due to him for the uses you have of him for the Lord hath created him' (Ecclesiasticus 38: 1).

The importance of medicine among Jews is seen in the long line of rabbi-physicians that started from the time of the early development of the Talmud — the code of civil, ceremonial and traditional law, which evolved from at least as early as 450 BC and on through the Middle Ages. Moses Maimonides (AD 1135 - 1204) is the classic example of a rabbi-physician. Some rabbis undertook medicine as a livelihood since teaching or studying the word of God for gain was considered unethical. Medicine was a subject in the curricula of *Yeshivot* (ecclesiastical colleges) in Talmudic times.

Lord Immanuel Jacobovitz,⁶ Chief Rabbi of Great Britain, explained the basis of Jewish medical motivation in his 1983 Moshe Prywes Lecture. Two Hebrew words are used for education, *limmud* and *chinnukh* from which are derived *melammed* and *mechanekeh*, both meaning teacher. *Limud* and *chinnukh*, however, refer to two different aspects of education — *limmud* is the learning process, the acquiring of skills, while *chinnukh* is the dedication and motivation. In Jewish tradition the two meanings fuse together, each element incomplete without the other. This was stressed in the training of rabbis and physicians. Healing is a religious commandment, a *mitzvah*. Life is precious in Jewish tradition. A doctor (as any other person) may violate all but 3 of the 613 *mitzvot*, as codified by Maimonides, to save a life; these are idolatry, adultery and murder. Indeed, this codification has a medical component, since the number 613 is made up of the number of solar days of the year (365) plus the number of anatomical components of the body as then understood (248).

Jacobovitz⁶ further noted that, since Jews considered the practice of medicine a religious ideal with its own ethics, they did not have to take the famous Hippocratic Oath which new graduates have taken for 2500 years.

Jewish motivation in medicine also arises from Judaism's emphasis on *this* world.

Jewish medical involvement over the ages

This can be divided into three periods: (i) biblical and Talmudic times to the 5th century; (ii) the 6th to the end of the 18th century; and (iii) the 19th and 20th centuries.

Biblical and Talmudic times to the 5th century

We rely for our knowledge of ancient Jewish medicine on the Holy Scriptures but more on the two Gemaras (supplement to the Pentateuch), the Palestinian, closed in about AD 390 and the major one, the Babylonian, redacted by AD 427. No Hebrew medical literature has survived from biblical times. Karl Sudhoff (1853 - 1938) the pioneer German gentile medical historian stated that two of the greatest hygienic concepts of mankind owe their origin to Judaism: the Sabbath, the weekly day of rest; and the direct prevention of infectious disease. He noted that ancient Greek medicine, despite being based on the natural causation of disease, was blind to the fact of direct transmission of disease.⁷

In disease prevention we have the following examples in the Scriptures. Leviticus 13: 1 - 59 deals with the examination of a case of suspected leprosy by a priest, who acted as health inspector, assessment of the period of isolation and treatment of clothing by washing or burning. The measures to be taken at the patient's home are dealt with in Leviticus 14: 1 - 57 — whether the walls should be scraped or the stonework replaced. Measures for the isolation of venereal disease patients is discussed in Leviticus 15: 1 - 33, and also their spiritual cleansing by animal sacrifice and the handling of contacts. Instructions for the isolation of a soldier exposed to venereal disease is found in Deuteronomy 23: 10 - 13, which also requires a soldier in the field to carry a digging implement to cover his excreta.

These specific guides in preventing infection were written 2500 years ago and are compulsory reading in synagogues to this day as canonised scripture in the *Torah*, the five books of Moses. Nothing as specific in disease prevention was written again until the 19th century.

Dietary laws with the exclusion of certain animals, sea creatures and carrion is found in Deuteronomy 14: 4 - 21. These have been generally interpreted as disease prevention measures, e.g. the pig is subject to a variety of transmissible diseases, non-scaly marine life includes some poisonous species and oysters at river mouths may harbour typhoid germs. Katz,⁸ expressing rabbinic opinion, differs and states that while the reason for some religious commandments, such as those on murder and theft, are readily discernible, the reason for others are not, such as the prohibition of the mixture of wool and cotton in garments in Leviticus 19: 19. Katz reminds readers that man's knowledge is limited while God's wisdom is infinite and cites Leviticus 20: 26: 'And ye shall be holy unto Me; for I the Lord am holy, and have set you apart from the peoples, that ye should be Mine.' Therefore Katz feels that spiritual health, holiness and purity, not physical health, is the reason for the dietary laws; any physical health resulting being a benefit rather than its basic motivation.

The Talmud⁹ provides a wider and detailed picture of ancient Hebraic medicine. A principle that repeatedly occurs is that physical cleanliness as a religious duty leads to spiritual purity. Washing the hands before touching food was strictly enjoined. Moderation in diet was advised. 'Eat a third (of the capacity of the stomach) drink a third and leave a third empty.' Two meals daily were advised. Environmental control received attention — a site for depositing carcasses, a cemetery and a tannery may not be located within 50 cubits of a city.

It is ironic that while these religious commandments, as applied to daily living, protected Jews in the Middle Ages

from outbreaks of communicable disease, they led to massacre after accusations of poisoning the wells of gentiles.

The 6th century to the end of the 18th century

This period includes Roman and Arabic domination of the Mediterranean area, the Middle Ages in Europe and the Renaissance, which brought about the emergence of the scientific outlook. From the aspect of Jewish involvement this era can be divided into two.

The 6th to the 13th centuries

Jewish medicine experienced an illustrious era in the Muslim world. Jewish physicians were not discriminated against and played an important role with Arab colleagues in maintaining the Greek scientific teachings when the Church in Europe discouraged these principles. Jewish physicians had command of the scholastic languages of that time, viz. Latin, Arabic, Hebrew and Greek and were major transmitters of Greek medicine to the Arabs and of Arab medicine to Europe with their migrations. Andreas Vesalius (1514 - 1564), the compiler of the first anatomy book based on human dissection, *De Humani Corporis Fabrica* (1543), learnt Hebrew to facilitate his studies and provided equivalent Hebrew terminology in the index of osteology in this work.

Jews in this era served as physicians to heads of state, e.g. the kings of France, popes and the doges of Venice. Moritz Steinschneider (1817 - 1907), in his studies of medieval Jewish physicians, traced 3014 worthy of recording. The most famous, Maimonides (1135 - 1204), was born in Spain, became physician to the court of Saladin in Cairo and Rabbi of that city. His medical, religious and philosophical works were written in Arabic. Major works, such as *Guide to the Perplexed*, which influenced Christian medieval scholarships, were translated into Hebrew and Latin. His medicine was based on Greek principles, but he cautioned against a blind belief in authorities and upheld the value of reasoning and experiment. His *Aphorisms on Galen* were printed in Bologna as late as 1489.

The 13th to the 18th centuries

The 13th century saw the tradition of the eminent Jewish physician come to an end with the Counter-Reformation. A

determined effort was made by Church edicts from 1267 onwards to drive Jews out of practice by preventing them from study or teaching at medical schools, even those like Montpellier and Salerno, which they had helped to found. Christians were also prohibited from consulting them. Then followed the edicts of expulsion of Jews from Spain and Portugal in 1492 and 1497, the Inquisition and forced conversions. Jewish physicians, as Marranos (cryptic Jews), continued their tradition of serving heads of state as far afield as Russia and Turkey.

From the 16th century the Church gradually lost control of social life and university education and Jews were gradually allowed to practise medicine freely and enter universities after 500 years of exclusion. Their easy re-entry into academic activity and medicine after this break was due to Talmudism, the body of learning started in the 5th century BC as an oral interpretation of Mosaic law. This further developed over 1500 years with the migration of Jews across the Mediterranean to Western and then to Eastern Europe. With Jews finding themselves in strange surroundings advice was requested and written rulings given by learned scholars at *yeshivas* established in the Jewish migration routes by a courier system — the *responsa prudentium*. The incorporation of Greek philosophy, logic and science, as well as Roman law in Jewish interpretations expanded the intellectual horizons of Jews and made them the best educated group in medieval Europe. Not only were they able to practise an efficient self-government in ghettos, but were able to pursue scientific and humanistic professions over this period without recourse to European universities.

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