
THE CONNECTION BETWEEN DENTISTRY AND RELIGION OVER THE AGES

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Abstract

This paper aims to highlight the role the priests, hermits and medical monks played in dental treatments over the centuries. It started with the pagan mysticism, when dental treatments were performed by wizards or shamans, the so called 'healer heroes', who were regarded by their peers as superior beings, gifted with the divine ability to be an mediator between the man possessed by an evil spirit and a kind divinity able to offer – if begged by use of magical gestures and right words – the long sought healing. The priests or the leaders of human communities appealed to different healing gods, each nation having their own favourite deity. With the spreading of Christianity throughout Europe, the true Christian priests appeared. These were monks dedicated to healing people, who through their dedication helped many people in suffering according to their power and knowledge and who also saved many valuable historical manuscripts from destruction. In the Christian West after the year 1000, specialized faculties and universities appeared. These have led to the emergence of specialists in this domain, which in turn limited up to the extinction the direct involvement of the representatives of the Church. Medicine thus became secularized.

Keywords: mystical, pagan, medicine, healing priests, dentistry

1. Introduction

In the history of Medicine it is stated that 'diseases are as old as man himself' and that pain has accompanied man throughout his existence, from its primitive stage of development up to the modern man. Medicine appeared from "the moment in which in many parts of the globe the *Homo sapiens sapiens* took his first steps towards the future", which means about 40.000 years ago, during the age of Cro-Magnon man [1].

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To reach medical practices based on scientific knowledge, many centuries had to pass. At the beginning man needed a mediator between him, his physical suffering and the supernatural intangible. Later on, through the development of his cortex, man acquired various skills such as curiosity, imitation, and ability to learn and gain knowledge and experience. It was the moment when the moral rules and gentle humanism appeared, the point where medicine started from [2].

2. General information

In order to understand the way in which religion managed to get such a high degree of importance in Medicine and Dentistry we need to explain the fact that most religious historians claim that the word 'religion' originates from the Latin 'religere' = to tie, with the sense of tying a man to supernatural entities [2].

The prehistory of Medicine is 'the age of the healing hero', and the healer from 20-30.000 years ago was seen by his peers as a superior being, gifted with the divine power of being a mediator between the man possessed by an evil spirit and a kind divinity able to offer – if begged by use of magical gestures and right words – the long sought healing [3].

Now is the time for the appearance of wizards, most of the time swindlers profiting from the naivety of the people and who we can find in our times as well, in different parts of the world, like the shamans. These were radically different from wizards, but their ultimate role was finally the same, the role of a healer [2, p. 172-245; 3].

Whether a healer or a shaman, this person often used to be a great priest or the chief of his tribe and needed to extract the evil spirit from a man. Regardless of where they acted, their therapeutic activity started from the idea that disease is due to an evil spirit, living in the sick body, which was sent by a divinity as punishment for the evil doings of the man, or by an enemy who convinced this divinity to be his ally [2, p. 172-245; 3].

Cuneiform writings graved in clay or stone tablets, belonging to the first state which appeared approximately 2.000 B.C., Sumer, with a culture and civilization known as Babylonian, contain sources of information regarding the interpretation of disease as well as their treatment. It is the time when therapeutic remedies mostly consisted in begging a healing god to banish the evil demon responsible for the disease [2, p. 172-245].

Black magic also played an important role in the treatments of the time. The Egyptians for example believed that a mouse was under the direct protection of the sun. That is the reason why, to combat dental pain, they sacrificed a mouse and applied its warm body on the painful area [2, p. 172-245; 4].

In antiquity, in Ancient Egypt, Medicine was [2]:

- mystical
 - magical (witchcraft or shamanic),
 - mythical (healing gods),
- empirical.

Mystical knowledge is primarily related to divine knowledge. “The close connection between hermitism and grace is the characteristic feature of Christian mysticism, unlike the pre-Christian mysticism and the non-Christian one” writes Ioan Gh. Savin, in his book entitled *Orthodox Mysticism and Hermitism* [4]. Mysticism seeks another state of knowledge and not another state of morality. It does not aim at a different way of life than the one required for the Christian to ensure salvation. “The lack of grace is the element that makes the difference, essentially and totally, from the Christian and pagan mysticism, the religious and profane one, as the surplus of grace is what distinguishes the Christian mystical knowledge from the Christian theoretical and dogmatic knowledge”, says the same author in his book. In pagan mysticism, the divine grace intervention is not possible. Between the pagan mysticism, based on religion, and the profane, pre-Christian one, based on philosophy, there are differences in terms of the procedures employed in curing sick people. Divine grace did not act for the shamans and sorcerers of antiquity [4].

In the light of the aspects mentioned above, it would be wrong to think that dental medicine has been practiced by the priests alone, who treated starting with the idea that disease was at the mercy of some healing gods (like the god Ra, Inhomtep, etc.). In Ancient Egypt (approximately 2000 B.C.) the dental practitioners who sometimes achieved great fame were either the priests or the physicians trained by the priests [5].

In Ancient Greece (about 1800-800 B.C.), the same mythical medicine was practised by the priests of Asclepius, who made diagnosis and applied treatment in a mystical manner, which was also true for dental medicine [2, p.172-245]. In the time of Hippocrates (6th century B.C.), medicine was practiced by the priests of the demigod Asclepius – Asclepian doctors – who lived in the vicinity of the temples (Corinth, Cos, Athens). They were those who investigated, diagnosed, recommended and applied mystical treatments [5, p. 23-33, 163-165].

In Rome, at the beginnings of dentistry, the practitioners invoked the help of a great variety of gods, but after the adoption of some Greek religious concepts, which happened after the transformation of Attica into a Roman Province (146 B.C.), the Romans appealed to the same gods as the Greek did. ‘The Roman Orthodoxy’ refers to the respect of religious dogmas and of the absolutely mandatory rules, which tied the Roman not only to the Gods, but also to the society [6].

The Biblical Hebrews may have inherited a number of their beliefs from ancient Mesopotamian cultures, among them a conviction that disease was divine punishment and therefore a mark of sin. To the ancient Hebrew it was essentially Jehovah, God Himself, who was to be placated as the giver and taker of health [http://www.healthguidance.org/entry/6309/1/Ancient-Hebrew-Medicine.html], as it can be seen in Exodus 15.26 (New International Version). “If you listen carefully to the LORD your God and do what is right in his eyes, if you pay attention to his commands and keep all his decrees, I will not bring on you any of the diseases I brought on the Egyptians, for I am the LORD, who

heals you”. Moreover, God has a positive view of the physician, as it can be read in Jeremiah 8.22 (King James Version). “Is there no balm in Gilead; is there no physician there? Why then is not the health of the daughter of my people recovered?”

The role of the priests within the Jewish religion was different from that of their counterparts in Egypt and Mesopotamia. They did not practice curative medicine, but, knowing the signs of many diseases, they used to diagnose them. This fact is mentioned in the Old Testament (Leviticus 13.1-59).

Examples proving how powerful the dogma was can be also found in the New Testament, which is “a collection of twenty-seven writings that form the specific assembly called Bible by the Christians” as stated by J. Delumeau [7].

3. Medicine between 632 and 1200 A.D.

After the Arabian conquering of Palestine many of the Jewish doctors served the new masters, but have not given up on their religion.

Teeth were considered to be extremely valuable, not only for digestion, but also for the aesthetics of the individual. Hence the expression ‘a tooth for a tooth’ while the punishment for an owner who caused the teeth loss to one of his servants was the fact that he had to release that servant.

In the Jerusalem version of the Talmud, written between 30 B.C. and 90 A.D., is indicated that rabbi-dentists use to manufacture prosthetics and used to engage in orthodontic treatments. The beauty of the denture was highly priced in Hebrew society and used to matter when it came to select a wife.

The Talmud thus introduces tough rules for the maintenance of individual health and for the health of the people, for maintaining bodily cleanliness and for protecting oneself against infectious patients [2, p. 172-245; 3, p. 118-190, 325-327].

Pain, dental cavities and radicular infection are ever-present in the ancient texts. In the Old Testament, when Jeremiah expresses his grief that God “has broken my teeth with gravel; he has trampled me in the dust” (Lamentations 3.16, New International Version), he makes a symbolic reference to his great dental suffering. In Talmud there are even some painkillers against toothache, which were made from herbs. For oral hygiene acid gargles were indicated, while for caries, which were believed to be caused by a worm, the prescription consisted in fumigations with tars or resins, which they believed would kill that worm. Attention is drawn to the complications arising from rash tooth extractions and the text advocates the keeping of the teeth on the arch [2, p. 172-245; 3, 118-190, 325-327].

4. Dacian-Roman medicine

From the Getae and the Dacians on our territories, described by Herodotus in the fifth century B.C., we have relatively few data on the medicine they practiced. It is however known that they practiced a mystical-priestly type of

medicine. The legendary Zalmoxis himself used to be a medical priest. After him, some of the priests that lived at the court of king Burebista used to withdraw into hermitage, in the woods or the mountains and enjoyed high prestige among their people. They used to be visited by pilgrims and by the sick that were searching for healing [V.L. Bologna, *Fragmente dintr-o schiță a istoriei medicinei din patria noastră, în faza de trecere de la sclavagism la feudalism (Fragments of a sketch of the history of medicine in our country, during the transition from slavery to feudalism)*, lecture, Cluj-Napoca, 1959, 1-5.]. The practice of these medical priests represented a mixture of magic and pragmatism, just like in any other ancient civilization.

The Dacians feared the evil eye and practiced incantations. They had healing deities and during their occupation the Romans have built hospital-temples, after the Greek model, in which sleeping and dreaming therapy was practiced [8].

5. Medieval medicine

In Byzantium, the capital of the Eastern Roman Empire, in 330 A.D., used to be practiced a medicine combining a mixture of superstition, witchcraft and mysticism [2, p. 172-245; 4; 5, p. 250-306].

Christianity, which from its inception was asserted as a religion of mercy, of helping another human being in need and suffering, assumed the care of the sick by the monks. The beginning for these Christian rescue missions was made by Empress Helen, the mother of Constantine the Great. Thus a series of charitable institutions appeared, edifices with specific destinations were built and hospitals where the free medicine used to be practiced were erected. The remedies for diseases were mystical (banishing demons through prayer), but other remedies based on the studies of Hippocrates and Galen were employed as well, especially the herbal ones. The number of these institutions increased at the end of the 4th century, when Saint Basil the Great (329-379), bishop of Caesarea, one of the monastic life initiators build hospital near Caesarea, while Saint Ephraim (306-373) raised a hospital for those suffering from the plague [2, p. 172-245; 3, p. 118-190, 325-327; 5, p. 250-306].

Constantinople was the siege of many doctors whose names and works conquered time.

6. Medicine and the intellectuals of the Catholic Church

In the early Roman Empire, Christians enjoyed many privileges but after Nero's enthronement, they were subjected to many persecutions and repressions. The fathers of the Church kept in touch with each other through letters. Thus, in a letter to Fabius, as noted by the historian Eusebius (265-339 AD) in 'History of the Church', the Bishop of Alexandria, Dionysius, recounts the history of Apollonia [3, p. 118-190, 325-327; 5, p. 250-306]. She was the daughter of an important Roman magistrate, who became a Christian martyr in Alexandria, in

the 3rd century, due to the fact that the pagans broke some of her teeth with a hammer while others were pulled out in a barbaric way with pliers. Realizing that she was to be burned on pyre, Apollonia asked to be untied in order to pray. After the prayer, Apollonia jumped into the fire herself, as a martyr for her faith. The legend tells that while burning she shouted that all those suffering from dental pain to invoke her name and thus to find relief of their suffering. Apollonia was canonized in 249 A.D., being celebrated on February the 9th [5, 250-306; 9].

Almost all churches and cathedrals of Europe celebrate the cult associated with Saint Apollonia, and in almost all the churches and cathedrals of Europe there is a sculpture, a glass painting or an etching of this saint. She is young in all representations, although Dionysius described her as an old woman. In iconography, Apollonia always keeps a forceps in her hand, which often contains a tooth. Apollonia's cult lasted over time and quickly spread to Byzantium and later to the Western Christian Europe where she is worshiped as the one who protects the dentists and their practice [3, p. 118-190, 325-327; 9].

In the medieval period, after the victory of Christianity, with the Edict of Milan of Emperor Constantine the Great (313), many of the antiquity's books were carefully collected and hidden in monasteries. It was the time when many manuscripts were thrown into the flames by the Proto-Christians. The monastic settlement of Monte Casino in Southern Italy (founded in 529 by Saint Benedict of Nursia) is famous for its ancient medical manuscripts library. Here and in other Benedictine monasteries from the German and French world, some monks defending the inviolability of sacred abode, used to read the classics of the ancient and Byzantine medicine and reproduce them in many copies, sometimes supplementing them with their own observations [2, p. 172-245; 5, p. 250-306].

In the history of medieval surgery many monks were known to be passionate about surgery, the 'hand art' of healing.

In the period between the fall of Rome (476) and the fifteenth century, dental diseases were frequently attributed to mineral deficiencies among the population suffering from poverty and to the local putrefaction of food debris from the undercuts of the teeth (especially meat) for the rich categories of people and especially in the case of the soldiers engaged in the campaign, living and eating any animal they came in hand. Oral hygiene was too little known. Generally, people went to bed without rinsing their mouth [1; 2, p. 172-245; 3, p. 118-190, 325-327]. This period is characterized by the fact that the monks were simply trying to extract the sick tooth and to calm the pain by fumigation or compresses.

In the Western Christian world, between 300-1300 AD, there were three categories of dentistry practitioners, namely [2, p. 172-245; 3, p. 118-190, 325-327]:

- the clergy (monastic dentistry and medicine),
- specific medieval barber surgeons,
- doctors with university degrees.

The clerics who benefited from translated ancient Arabic writings, passionately practised not only general medicine but also dental and pharmaceutical medicine. This was possible until the ecclesiastical authorities, alarmed by the fact that the monks would neglect what they called the *Salus animae*, banned the practice of surgery, including dentistry performed by clergymen, through a series of councils. We refer to the Edict of Clermont (1130) and the one of Reims (1139), often broken, and the Edict of Rome (1139) and the one of Tours in 1163, by which the practitioner monks were threatened with excommunication. These threats paralyzed the dental work. [2, p. 172-245; 5, p. 250-306].

For eight centuries (350-1165 A.D.) the monks made copies of the ancient Arab and Byzantine texts related to surgery. Moreover, they practised medicine. Below are some of the monks who are known for their work related to Medicine [2, p. 172-245]:

- **Isidore of Seville** (570-636 AD) - Bishop, author of a huge encyclopaedia called *Etymologies* published in 40 volumes, describing the emergence and evolution of teeth. He called incisors *praecisores* but repeated the mistake of Aristotle, who said that men have 32 permanent teeth, while women had only 30. He believed that the teeth were produced by the soft gum tissue.
- **The Venerable Bede** (673-735 AD) – an English monk who recommended the popular remedy for toothaches of ‘cutting under the tongue’, trying a Hippocratic explanation for this method. He said that dental pain and facial neuralgia were the result of blood excess in the brain. The pain was not of local but of central origin and was located in the brain. Its endpoint was located at the root of the tooth or periorbital skin and/or cheek region, in the case of facial or trigeminal neuralgia, where sublingual vessel incision method derives from. In his writings, there are many cures for toothache, herbal remedies (e.g. root of henbane, baked asparagus, macerated 30 days and used as mouthwashes or hot ivy leaf juice, poured into the ear of the side affected by pain).
- **Saint Hildegard** (1099-1179 AD) - monk, abbot of the monastery of Bingen, Germany), who left to posterity the most objective writing on dental surgery - *Physica*. This paper makes a systematization of all that has been written before, and offers herbal remedies and minerals for dental pain. He uses mixed decoctions from burned minerals and fruit flesh, pepper and mustard which he then applies on the dental abscesses. To kill the cavity-causing worm, he introduced aloe paste fried in oil and myrtle into the mouth. He argued that oral hygiene needed vigorous rinsing with vinegar after every meal. He also recommended sublingual bleeding and the bleeding of the superficial veins of the face.

In the Middle Ages, especially between 750-1100 AD, there were probably other writings too prepared by the clergy but signed with the prefix ‘pseudo’ (Pseudo-Apuleius, Pseudo-Pliny, etc.), which ecclesiastical authorities could not penalize them [2, p. 172-245; 5, p. 163-165, 250-306].

In Western Europe, medicine was practised by monks. After the year 1000 and especially after the opening of medical schools and universities in Salerno and Montpellier, this science became secularized (not completely, but enough for the *sanitas corporis* to prevail).

Renaissance is characterized by the emancipation of all sciences, scientists discovered the canons of scholarly thought and Medicine undertakes an unprecedented leap.

In dentistry progress regarded the knowledge concerning the morphology of the face regions. The enamel, dentin, pulp, vascularisation and innervations of teeth were described (Bartolommeo Eustachio, 1510-1574). The practice is still undertaken by the barbers and the surgeons, but rarely by physicians. All of those who were not good at extractions were gradually eliminated. The first monograph exclusively dedicated to the dental pathology appears in Leipzig (1530) and many others followed. Thus, we can observe that doctor monks were no longer among those who practised dentistry, which became mostly secular [5, p. 163-164, 250-306].

7. Conclusion

Between Medicine and religion, in their different forms determined by the human society evolution, there are links since the prehistoric times, when sorcerers, shamans, regardless their name were the representatives of the good against evil factors. Later they were replaced by priests, who were in the beginning the leaders of the community. After the establishment of Christianity and up to the edicts of Rome and Tours the priests and monks had a rich medical activity. Between 350 and 1165 AD, the people of the Church were busy saving and copying in monasteries ancient surgical, Arab and Byzantine texts, restoring them to posterity, but also undertaking medical practice itself.

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References

- [1] M.C. Teodorescu, *Igiena*, **31(2)** (1982) 170-185.
- [2] R. Iftimovici, *Istoria universală a medicinei și farmaciei (Universal history of medicine and pharmacy)*, Romanian Academy, Bucharest, 2008, 10-19.
- [3] R. Iftimovici, *Istoria medicinei (The history of medicine)*, ALL, Bucharest, 1994, 16-93.
- [4] I.G. Savin, *Mistica și ascetica ortodoxă, (Orthodox mysticism and ascetics)*, Tiparul tipografiei eparhiale, Sibiu, 1996, 19-29.
- [5] M.E. Ring, *Dentistry – An illustrated History*, Harry N Abrams, New-York, 1985, 23-33.
- [6] C. Săndulescu, *Medicina greacă și romană (Greek and Roman medicine)*, in *Istoria medicinei universale (History of universal medicine)*, Editura Medicala, Bucharest, 1970, 145-189.

- [7] J. Delumeau, *Religiile lumii*, Humanitas, Bucharest, 1993, 58-63.
- [8] I.H. Crișan, *Cele mai vechi 'spitale' de pe teritoriul României, asclepioanele de la Apulum și Sarmisegetuza (The oldest 'hospitals' on Romanian territory, the Asclepions in Apulum and Sarmisegetuza)*, in *Spitale vechi și noi (Old and new hospitals)*, Bucharest, 1976, 35-46.
- [9] M. Burlibașa, *Pagini din istoria stomatologiei românești și universale (Pages from the history of Romanian and universal dentistry)*, Cermaprint, Bucharest, 2011, 153-157.