



Special article

The charity and the care: the origin and the evolution of hospitals

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ABSTRACT

Background: The hospital is considered as one of the founding elements of modern medicine. Such an institution, originally born to be a center for housing the sick and the poor, has provided with a place to improve the medical knowledge and to educate new generations of nurses and physicians. This paper wants to remind the meaning and the development of the hospital institution in the western world.

Methods: The first part of this work analyzed the evolution of hospital, using a classical historiographical approach. In the second part, the history of the “Ospedale Maggiore” in Milan was used as a paradigm to describe the evolution of hospital from the Renaissance to nowadays through a “microhistorical approach”.

Results: The origins of the public hospital are evidenced in early Christian age, when the Christian message led people to assist the sick and the poor and to establish centers for such interventions, initially in the house of the bishop, then in monasteries and, finally, in autonomous buildings (the hospitals). These institutions were economically supported by the donations of wealthy philanthropists. Since the nineteenth century the hospitals have changed their organization and functions, but have continued to associate the charity and the care.

Conclusion: Christian charity and the lay culture originated from it may be rightly credited not only as the founding element of ancient hospitals, but also as the virtue which has made possible for the development of medicine, as we know it.

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1. Introduction

The advent of hospitals may be rightly credited as a key turning point in the history of western medicine. Indeed, these institutions were not only places for the treatment of the sick, but also centers for the development of medical knowledge and for the education of new generations of healthcare professionals. Hospitals served several functions during their millennial history: they were almshouses for the poor, hostels for pilgrims, hospices for the elderly and the marginalized people, and healing centers for the acute and chronic ill. These institutions played an essential role in the life of each community, as demonstrated by the fact that each city and big town had its own hospital. Since the sixteenth century hospital's model, originally developed in Europe during the Middle Ages, had been exported all over the world by Christian missionaries, becoming the fundamental nucleus of the western medicine approach. In order to better understand what could be the role of hospital in the current healthcare organization, it may be useful to analyze the evolution of this institution over the centuries through a traditional historiographical approach, particularly recalling its original meaning based on Christian concept of charity. Furthermore, the history of the “Ospedale Maggiore” of Milan from its

establishment until nowadays was accurately investigated, being this institution – founded during the Renaissance and still active today – a model for most of the European hospitals of that period. Thus, information on the evolution of hospitals in modern times could be achieved from the history of a single institution, using the so-called “microhistorical approach” [1].

1.1. Healing centers in antiquity

Institutions for caring the sick – forerunners of modern hospitals – date back to the beginning of civilization. “Healing centers” were documented in the ancient temples of Mesopotamia, Egypt and India, where ill people were brought to be cured by the priests through rituals and magico-religious practices [2]. These places generally provided a short refuge for the acutely sick people, good air, and some kinds of treatment based on medical herbs, hot and cold baths, rich diet and uncontaminated water from sacred springs. The patients could spend the night (*incubatio*) in the temples of Asclepius, the Greek god of medicine, where their dreams could be interpreted by priests who suggested appropriate remedies for their disorders. Similarly, the god Aesculapius (the Latin name of Asclepius) had a temple on an island in the Tiber (*Insula Tiberina*), where the Romans adopted practices similar to the Greeks. Actually, in ancient civilizations there were no public institutions where ill people could be treated for prolonged periods of time. In the Greco-Roman world, indeed, many doctors were in private practice and worked in shops or office (*iatreion* or *taberna*), where they treated and then sent home the poorest

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patients [3]. On the contrary, the rich were visited by personal physician at their own home. In the early years of the Roman Empire, infirmaries/dispensaries for injured slaves and primitive camp-based hospitals for sick soldiers (named as *valetudinaria*) were mentioned by several authors, such as Columella (4–70 AD) [4,5]. However, these primordial healing centers did not seem to have played a direct role in the evolution of hospitals, since they were established for peculiar disorders – treatable according to the beliefs of the times – and specific classes of patients, being not available for general population and in particular for those affected by infectious diseases.

1.2. Early Christianity: the birth of the concept of hospital

The origins of the public hospital, as a place where strangers, pilgrims, sick and poor people could be received and cared for, are evidenced in early Christian age. In the gospels, Christ himself healed the sick through several miracles, charging his disciples to care for the ill and indigent (Luke 10:9) and giving them power over diseases (Mark 16:18). The practice of hospitality was therefore considered as a virtue among the early Christians [6]. The word “hospital”, as well as “hotel” and “hospice”, derives from the Latin term “hospitium” (from the Latin root “hospes”, guest), indicating a lodge, a refuge, a guest-chamber for strangers [7]. According to the Christian doctrine, the bishop must be “given to hospitality” (*hospitalem*, 1 Timothy 3:2) and must have a guest-room (*hospitalium*) in his own house for the use of poor and ill travelers; probably, he was also requested to act as a physician in this room [6]. In that period, the growing density into the cities of Roman Empire caused an increase of infectious epidemics and several wealthier Christians started to imitate their bishops, establishing a “hospitalium” in their own house [6]. Unfortunately, the persecutions against Christians delayed the organization of these structures, so the advent of first hospitals could come only after the “Edict of Milan” (313), promulgated by the Byzantine Emperor Constantine (272–337), aimed at granting religious freedom to Christians [7]. In 365 St. Basil (c. 330–379) founded a hospital at Cesarea (Cappadocia), having as many wards as the diseases known at that time and also including a section for lepers. St. Basil’s hospital, described by St. Gregory of Nazianus (c. 329–390) as “a heaven upon earth”, was similar to a city, with streets separating pavilions, workshops, convalescent homes, hospices for the travelers and the poor, and residences for attendants, nurses and physicians [6,8]. Based on this model, new hospitals were established at Alexandria by St. John the Almsgiver (556–619), and at Constantinople by St. John Chrysostom (c. 347–407), St. Pulcheria (c. 399–453) and St. Sampson the Hospitable (died c. 530). This last one, after curing the Byzantine emperor Justinian (482–565), requested him to be helped in establishing a new building for the poor. A hospital was also founded by the Empress Eudoxia (401–465) in Jerusalem [7]. In the western Roman Empire, one of the first institutions for healing sick was established in Rome by Fabiola (died c. 400), a wealthy Roman widow; St. Symmachus also built three hospitals in the same city during his pontificate (498–514) [3,6].

Christian model of hospitalization also influenced the development of healing centers in countries under the Islamic control. The first Arabian hospital was built at Damascus by the Caliph el Welid (707) and in the following centuries similar institutions were established in the Near East (Baghdad, Antioch, Jericho, Mecca, Cairo, Medina) and in Spain (Seville, Cordova). These institutions, named as *bimaristan*, were also centers of medical education for students from Europe and the Far East regardless of their religious belief, so being somehow forerunners of the modern medical teaching hospital [7]. They were generally well organized; medical care was provided by a staff of physicians and nurses and patients were admitted to different wards according to the kind of their disease. In addition, the first mental hospital for the insane (*maristan*) in Europe was established at Granada (Spain) by Islamic doctors [7]. Arab hospitals in Spain, Baghdad and Isfahan were known because they admitted patients regardless

of their belief, race, or social order: all the treatments were free of charge and the institution was supported by the entire community. However, in these institutions the Jews were more accepted than Christians, who were considered enemies because of the Crusades [2].

1.3. Middle Ages: from the hospital–monastery to the inner-city hospital

It was in the Christian world that hospitals spread over almost like a popular phenomenon. By the middle of the 6th century, many hospitals arose in Europe thanks to the support of churchmen, noblemen and kings. For example, Charlemagne (747–814) promulgated a decree that hospitals had to be attached to every cathedral built in his kingdom, stimulating the clergy to supply the needs of the sick and the poor [7]. Actually, during the Early Middle Ages, depopulation, de-urbanization, and barbarian invasions promoted the rise of a new center of culture: the monastery. In his monastic Rule, St. Benedict of Nursia (c. 480–547) placed the care of the sick “above and before every other duty”, suggesting to establish an infirmary (*infirmatorium*) for inmate and sick travelers in every monastery, repository of medical as well as all the written ancient and medieval knowledge [7]. According to Rosen, from the 8th to the 12th century the monastic hospital “was almost the only institution in Europe whose chief task was to care for sick” [3]. During the Late Middle Ages the rise of self-governing towns and the expansion of population, specially from the year 1000, stimulated the establishment and the development of inner-city hospitals, whose management was put also in the hands of lay administrators. The economic wealth, derived from commerce, provided, with the interventions of rich donors, the resources to build new hospitals. For example, in 1174 St. Gerard (c. 1134–1207), who came from a wealthy family of dyers, inheriting the property after the death of his father, established a hospital at Monza, near Milan. Similarly, in 1288 the rich banker Folco Portinari (died 1289) founded the “Santa Maria Nuova” hospital at Florence [7]. Indeed, the guilds collected funds for the relief of their sick and disable members, building their own hospitals or paying other institutions for their accommodation and treatment. Hospitals were also used as an almshouse for the poor and a hostel for the pilgrims and travelers marching to the great sanctuaries of the Christianity or along the routes towards the Holy Land. At that time, some confraternities and religious orders, mainly governed by the “Rule of St. Augustine” – a monastic rule which pays great attention to the sick and the poor – flourished in various part of Europe, so influencing the development of hospitals that became “public” in their function [8]. In particular, during the Crusades, the Knights of St. John (or the “Hospitaliers”) and the Teutonic Order, originally founded to care for the sick and wounded crusaders, established several hospitals in the Holy Land and in the rest of Europe, where the knights acted as nurses and physicians. Another of these was the “Order of Holy Ghost”, founded in 1180 by Guy de Montpellier (1160–1209) for the care of the sick by lay people. His Order spread rapidly through Europe and Pope Innocent III (c. 1161–1216) gave him charge of the “Ospedale di Santo Spirito” in Rome [6–8]. From the 13th century on, the control of the medieval hospitals moved from the ecclesial to the secular authority in the cities. So, the physicians were chosen and paid by the municipality, while monks and nuns continued to carry out activities as nurses and attendants under the direction of a “frater hospitalis” [8]. All the kinds of patients and diseases were admitted to the medieval hospital, providing recovery also for the blind, lame, elderly, and mentally ill. For example, as testified by “De magnalibus urbis Mediolani” (“On the marvels of the city of Milan”, 1288), written by Bonvesin de la Riva (c. 1240–1315), in Milan the hospital of the Brolo “served all the poor of the community except the lepers, who were treated elsewhere”. However, this hospital system, as well as all the medieval medicine, fell into a crisis due to the Black Death epidemic in the 14th century. According to the French physician Guy de Chauliac (c. 1300–1368), during that period “caritas erat mortua, spes prostrata” (the charity was dead, the hope laid off) [8].

1.4. From the Renaissance hospital reform to nowadays: the example of the “Ospedale Maggiore” of Milan

During the Middle Ages, the emphasis on charity and poverty avoided any kind of medicalization in the medieval hospitals, but also evidenced the absence of any therapeutic purpose in these institutions [8]. By the fifteenth century, the movement for hospital reform, developed mainly in Italy, had as key element the institution of “great hospitals”, combining the charitable systems and more recent hygienic notions into a single and big building aimed at healing the sick. The purpose of this reform was the creation of an integrated civic hospital system that would rationalize the care offered by private and religious institutions in a new healthcare network, available to all citizens. The model of this reform was the “Ospedale Maggiore” of Milan, founded by the Duke Francesco Sforza (1401–1466) in 1456. This new hospital, designed by the Florentine architect Antonio di Pietro Averlino, known as Filarete (c. 1400–1469), was able to provide free medical assistance for the poorest of the city and to improve efficiency in healthcare by converging patients from the various institutions of Milan on a single “bigger” building (also named as “Ca’ Granda”, Big House) [9]. Actually, only people suffering from acute diseases could be admitted to this institution while the elderly and the people afflicted by chronic and “incurable” diseases (e.g. syphilis) must be treated in other “specialized” hospitals, outside of the city. Basing on the model of the ancient temples of Asclepius, the Renaissance humanists and architects, such as Leon Battista Alberti (1404–1472) and Filarete himself, recommended to keep the air pure and the water clean in these buildings. So, in the Ospedale Maggiore of Milan, innovative sewage systems, cleaning of sheets and room ventilation allowed to prevent infectious diseases among patients [9]. Moreover, a permanent staff of doctors, surgeons and nurses was dedicated to providing care and relief to patients at the city’s expense. Patient assistance was a hard and dangerous job and, for this reason, mercenaries, inmates and other convicted guys were frequently employed in it as a form of punishment or expiation, with a sensible decay of the quality of the assistance itself. St. Camillus de Lellis (1550–1614), just during his stay in the “Ca’ Granda” in Milan, noting the carelessness treatment of the sick in hospitals “(he stated that hospital itself was a cause of death)”, formulated the “Rules to serve the poor sick with every perfection” (1613) [9]. These included 71 general directives to be followed by all the members of the Order he founded – the “Clerks Regular, Ministers to the Sick” or Camillians – which rapidly diffused and renewed hospital care all over the world. Indeed, the hygienic innovations were not enough to improve patients’ health conditions, unless they were also supported by the charity of health professionals. Charity stimulated philanthropy and solidarity. The citizens of Milan started to support their Ospedale Maggiore, through legacies, donations, contributions and oblations paid during the “Festa del Perdono” (Feast of Forgiveness), a special city jubilee celebrated in every odd-numbered year (Fig. 1) [9].

At that time, this new hospital, connecting the Christian concept of charity with the most modern hygienic ideas and therapeutic purposes, represented a model for other institutions in Italy and in the rest of Europe, as demonstrated by the letters of Martin Luther (1483–1546) from Italy, in which the religious reformer praised the Italian hospitals for their excellence. The “Ca’ Granda” also anticipated the concept of “general hospital” (“hôpital généraux”), developed during the seventeenth century by French ministers Giulio Mazzarino (1602–1661) and Jean-Baptiste Colbert (1619–1683) under Louis XIV, to provide care for the sick and in general to improve the health of the nation, according to the increasing role of the absolute state in dealing with economic and social problems [3].

In the succeeding centuries, the “Ospedale Maggiore” of Milan continued to be a model for hospitals in Europe and abroad. However, as other charity healing centers (e.g. the Charité in Berlin, 1710; the Guy’s Hospital in London, 1724; the Pennsylvania Hospital in the Northern America, 1751), the “Ca’ Granda” was mainly sustained by

the economic support of wealthy donors and philanthropists. So, only at the end of the eighteenth century the buildings of the “Ospedale Maggiore” could be definitely completed with the donations by the archbishop of Milan Carlo Borromeo (1538–1584), the liberal citizen Giovan Pietro Carcano (1559–1624), and the notary Giuseppe Macchi (1713–1797) [9]. In that period, even if the Milanese hospital was not linked to a university center (the Medical School was located in Pavia), it became an educational center for young physicians, being influenced by the concept of “bedside teaching” introduced by the Dutch physician Herman Boerhaave (1668–1738) [3]. Afterwards the hospital administration introduced some innovations in its organization such as the institution of a chemical laboratory (forerunner of modern clinical labs), the reorganization of formularies, and free drug distribution to poor of the city.

According to the Italian politician Carlo Cattaneo (1801–1869), during the nineteenth century the hospital was able to freely admit all citizens of Milan, regardless of their socio-economic class [9]. Actually, in the second half of the century, the Renaissance building appeared too inadequate to achieve these purposes. Indeed, the hospital, designed for only 288 patients in the fifteenth century, could no longer admit the increasing population of the most industrialized city of Italy. It should be mentioned that in the same period, the “Hôtel-Dieu” in Paris alone had more than 1,000 beds [3]. For these reasons, in the last years of the nineteenth century the administration started to move the hospital in a new area, creating a more modern structure based on a pavilion model and completed in 1930s. Indeed, in that period, new hospitals (such as the new St. Thomas Hospital in London, 1868) adopted the “pavilion principle”, well popularized also by Florence Nightingale (1820–1910) in her “Notes on Hospitals” (1859), since this architectural design allowed a greater degree of separation and segregation of the ill (particularly infectious patients) and significantly improved ventilation and sanitation [10]. The advent of the “pavilion principle”, which coincided with a sharp decline in hospital mortality rates, resulted in a major admission of inpatients and forced general hospitals, such as the “Ospedale Maggiore”, to open more departments and to increase bed number. So, in the following decades, new pavilions were established and entitled to benefactors or to other distinguished people in the history of the hospital.

At the beginning of the 20th century, the hospital organization in Milan was interesting not only for the renovation of its main general hospital, but also for the concurrent construction of “specialist hospitals”, originally born at the middle of the previous century. Such hospitals gave the specialists the opportunity to study more deeply diseases, that were widespread and socially relevant [11]. In Milan, a movement of doctors engaged in social issues promoted a wide variety of specialist hospitals, aimed at providing assistance to disabled children and cripples (1881), pregnant women (1906), workers suffering from occupational diseases (1910), children (1915) and mentally ill people [9]. Specialist hospitals caused struggles within the medical profession, since at that time it was believed that the best physician had to be competent at everything, and, so, some scholars ran campaigns against these institutions, arguing that they drew away interesting cases from the general hospitals and harmed the education of medical students [11]. Actually, the “Ospedale Maggiore” that, in the meantime, had been connected to the Medical School of the newly founded “University of Milan” (1922) and had been recognized as “Research Hospital” by Italian government (1981), has continued its centennial mission of charity and care until nowadays, showing its value in clinical and scientific research in Italy and abroad.

2. Conclusions

This paper has briefly described the evolution of hospital in western medicine, mainly focusing on its original meaning, so strongly related to the Christian concept of “caritas” (charity). In ancient times, the rationalistic (and even religious) approach of Hippocrates, Galen



Fig. 1. The courtyard of the “Ospedale Maggiore” in Milan during the seventeenth century.

and their followers had been not sufficient to sustain the care of sick, who were often infectious (and so dangerous) or critically ill. Therefore, the ill carried to themselves and others only a desperate message: the inevitability of death. The resurrection of Christ introduced a new hope: God has become a man, sharing man's mortal destiny and winning it, so promising a new eternal life for each believer. Faith in this promise, based on a historical “good novel”, changed the world and the medical profession with it. The concept of “*caritas*” introduced a filial–paternal bond between God and man and, consequently, a bond of brotherhood among men themselves. In the succeeding centuries, the charity was the central value to encourage physicians and nurses to continue to assist the sick, even when there was no curative remedy for them, and it is also essential nowadays when diseases and disabilities cannot be corrected. It stimulated also philanthropy and solidarity of non religious people, that, wealthy or not, contributed with their money and work to the diffusion and improvement of hospital assistance. It is not a case if hospitals are often entitled to charity, saints and donors. The Christian charity, and its “lay” versions of philanthropy or solidarity, may be rightly credited as the founding elements of ancient and modern hospitals, and, for this reason they could be considered as the virtue which has made the development of medicine, as we know it.

Learning points

- The advent of hospitals was a key turning point in the history of western medicine.
- The origins of the public hospital can be evidenced in the early Christian Age (e.g. St. Basil's hospital, 365 A.D.), also influencing the development of similar centers in the Islamic countries.
- After the crisis of the medieval hospital system due to the Black Death epidemic, new greater general hospitals were instituted, according to the model of the “Ospedale Maggiore” of Milan (1456).

- The process of modernization of hospitals has continued to the present day, especially thanks to the economic support of wealthy donors and philanthropists.
- Christian charity first, philanthropy and solidarity may be credited as the founding elements of ancient and modern hospitals, and therefore of the western medicine, as we know it nowadays.

Conflict of interest

The authors state that they have no conflicts of interest.

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