

# Means of Achieving Health Security in The Umayyad Era (41-132 AH/661-750 AD)

Mashaeh J. Alotaibi

Department of Social Sciences, College of Education in Al-Kharj, Prince Sattam bin Abdulaziz University, Al-Kharj 11942, Saudi Arabia

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**Abstract:** The aim of the current study is to examine the means to achieve health care security in the Umayyad era and the most important therapeutic and preventive measures taken to maintain health and prevent the spread of diseases, both for individuals and communities, and at the level of the environment with its various components. The study starts by defining the concept of healthcare security linguistically and terminologically and then focuses on the Umayyad era's interest in taking medical measures, which was manifested in the attention paid to medicine and doctors, who enjoyed a special status during the Umayyad era. This includes the establishment of hospitals, both fixed and mobile, and the allocation of departments in hospitals for the elderly and for certain infectious diseases, in addition to therapeutic baths. The study also discusses the most important preventive measures to maintain health or prevent the spread of diseases, such as personal hygiene, cleanliness at home, and avoiding consuming foods prohibited by Islamic law due to their harm to human health. Additionally, the study emphasizes the importance of healthcare for soldiers, people with disabilities, prisoners, and animals. To achieve its objectives, the study adopted a descriptive-analytical historical approach to collect information and historical narratives from sources and references and to analyze them objectively in a way that served the topic of the study. The study concluded that the Umayyad caliphs prioritized the health of their subjects and animals by allocating hospital departments to the elderly and infectious diseases. They also expressed concern for people with disabilities and prisoners. The study recommends prioritizing subjects' rights in medical treatment and promoting personal hygiene, home cleanliness, planting trees for air purification, and using isolated areas during epidemics.

**Keywords:** Health security, Early Islamic history, Amawi Caliphate, Preventive measures, Medical Facilities.

## 1 Introduction

During the era of the Umayyad Caliphate, the Islamic era expanded its territories to reach China in the east and Al-Andalus in the west. The Caliphate engaged in many Islamic conquests to spread Islam and expand its territory. Therefore, the Umayyad caliphate was fully aware of the importance of human wealth as the foundation of the era's support and development, and thus, it was essential to preserve it. The Caliphate took care of its citizens, including their healthcare security. This study, entitled "Means of achieving healthcare security during the Umayyad Caliphate era from (41)-132 AH (661-750 AD)" (which was prepared by the University of Prince Sattam bin Abdulaziz in Saudi Arabia), sheds light on the most important healthcare measures that the era took to maintain the health of its population and confront diseases and epidemics. These measures included medical treatment, care for doctors, translation of medical books, establishment of hospitals, allocation of places for patients with infectious diseases, and providing therapeutic baths to provide medical services to patients in the Umayyad Caliphate.

Furthermore, the study addresses the most important preventive measures that the era took to prevent diseases and limit the spread of epidemics. These measures included personal hygiene, house and road cleanliness, planting trees to purify the air and improve the psychological condition of patients, resorting to isolation or desert and mountain areas in case of the spread of diseases or epidemics, as well as taking care of the health of soldiers, people with special needs, prisoners, and animals. Therefore, the study aimed to evaluate the extent of the Umayyad Caliphate's attention to healthcare care, the most important measures it took to achieve it, and the extent to which the population benefited from these measures.

One of the difficulties of this study is that, despite the abundance of sources that discussed the Umayyad Caliphate era, the focus of the work was primarily on discussing political events. As a result, there is a scarcity of direct information from sources about the healthcare aspect. Information about healthcare is scattered throughout sources and books, making it challenging to collect this information.

\*Corresponding author e-mail: [alshgaa1@windowlive.com](mailto:alshgaa1@windowlive.com)

Regarding health care before the Umayyads In our exploration of health security during the Umayyad era, it is essential to consider the broader historical context, including the health care practices of preceding eras, primarily the pre-Islamic era, the prophetic medicine period, and the era of the Caliphs.

The pre-Islamic era, also known as the Jahiliyyah period, was marked by a rudimentary understanding of medicine. The Arabs during this era lacked formal medical knowledge and primarily relied on their experiences, expertise, and traditional practices for treating diseases. They also held spiritual beliefs, attributing diseases to evil spirits, and hence employed treatments involving magic, sorcery, and the use of slaughtered animal and insect blood. However, a handful of Arab physicians gained knowledge of the medical arts through their travels to Yemen and Egypt, contributing to a rudimentary medical knowledge base. Among these, Al-Harith ibn Kalada ibn Amr ibn 'Ilaj stood out as a prominent physician, whose medical expertise became renowned among the Arabs after learning medicine from the Persians and practicing it successfully [2].

Following this was the period of prophetic medicine, which saw significant shifts in health care practices. Based on the teachings of the Prophet Muhammad, this era introduced a more comprehensive approach to health care that incorporated spiritual elements into existing practices [3]. Prayer, fasting, and the use of specific medicinal plants and foods became integral parts of health care, thereby laying the groundwork for more structured health care systems in the Islamic world.

The era of the Caliphs witnessed further advancement in health care infrastructure with the Islamic empire's geographical and cultural expansion. This era's noteworthy contribution was the establishment of Bimaristans, the Islamic world's first hospitals [4]. The transition from primarily home-based care to organized, community-based health care marked this era, with Bimaristans featuring dedicated staff and organized treatments. The cumulative influence of these developments set the stage for the unique health care system of the Umayyad era." [5].

"Concerning the topic of medicine and healthcare in the early stages of Islamic history, particularly the Rashidun and Umayyad eras, two notable studies deserve mention. The first study by Sajida Mukhlif Hassan [6], titled "Medical Activity in the Rashidun and Umayyad Eras," was published in the Journal of Scientific and Literary Heritage in 2015. Hassan's research focused on the attentiveness of the Rashidun and Umayyad caliphs towards medicine and physicians and highlighted notable doctors of the Umayyad period. The study underscores the importance of medicine as a field closely tied to human life, health, and safety. It was discovered that Imam Ali ibn Abi Talib had a profound understanding of the medical sciences, which was evident in his profound quotes and advice. During his rule, physicians were actively involved in military battles to treat the injured. The caliphs also employed several doctors who undertook tasks like contemporary health inspectors: visiting hospitals, monitoring patient care, and overseeing dietary systems. The study also revealed that Arab and Muslim physicians pioneered a dedicated system for medical practitioners that included scientific, ethical, and necessary qualifications.

The second study by Asmaa Yousef Dhiab Al-Kindi, titled "The Umayyad State and Its Efforts in Health and Medical Care," was published in the Journal of Egyptian Historian in 2021. This research aimed to shed light on the condition of medicine during the pre-Islamic era, the prophetic era, the era of the Rashidun caliphs, and the contributions of the Umayyad state to health and medicine. Al-Kindi concluded that the Umayyad state was successful in establishing comprehensive healthcare during this early period. It emphasized environmental cleanliness, pollution prevention, and the creation of a suitable, healthy climate. Furthermore, the number of physicians increased significantly during the Umayyad era, contributing greatly to medicine's progress and patient care.

In summary, these studies illuminate the initial stages of medicine and healthcare system development in Islamic history, particularly during the Rashidun and Umayyad eras. Al-Kindi's research highlighted the Umayyad state's comprehensive healthcare approach, environmental cleanliness emphasis, and the critical role of physicians during that era. Hassan's study brought to light the Rashidun and Umayyad caliphs' attention to medicine, the participation of physicians in military battles, and the establishment of a specialized system for doctors. Taken together, these studies enrich our understanding of the genesis of medicine and healthcare systems in Islamic history and the significant contributions made by physicians during these formative periods."

## 2 Objectives

The following research aims to:

- A. Identify the means of achieving healthcare care security in the Umayyad Caliphate during the study period.
- B. Examine the era of therapeutic healthcare security in the Umayyad Caliphate during the same period.

## 3 Methodology

The research relied on a descriptive-analytical historical approach to achieve its objectives by collecting historical

information and narratives from sources and references and objectively analyzing them to serve the study's topic. The study's scope is objective and is entitled "Means of achieving healthcare security in the Umayyad Caliphate during the period from 41–132 AH (661–750 AD)". The geographical boundaries of the study were limited to the University of Prince Sattam bin Abdulaziz in Saudi Arabia.

## 4 Results and Discussion

To review the research results and discuss them, the study will examine the means of achieving health security in the Umayyad era (41–132 AH / 661–750 AD). This will be done by discussing the following: Firstly, defining the concept of health security. Secondly, identifying the most important means used by the Umayyad era to achieve health security is as follows:

### 4.1 The concept of health security and its pillars in the Umayyad era.

To clarify the concept of health security, its meaning in language and terminology will be addressed. Linguistically, security means "against fear, safety, contentment, safety, security, and trust" [7]. The word security and its derivatives also appear in the Holy Quran in several places, meaning safety, psychological reassurance, and the absence of fear for human life or for what it involves in terms of interests, goals, causes, and means. Therefore, security includes both individual and societal security, as Allah Almighty says: "Is he who is cast into the fire better, or he who comes secure on the Day of Resurrection?" (Fussilat 41:40) [1]. He also says: "In it are clear signs, the standing place of Abraham, and whoever enters it shall be secure" (Al-Imran 3:97) [1]. It is clear from this that security in language revolves around the concepts of tranquility and fearlessness, as well as psychological stability, peace of mind, and the disappearance of fear from the human psyche. In terms of terminology, security does not deviate from linguistic meaning. Thus, the terminological concepts of security vary, such as "the absence of anticipating harm in the future" [8] and "security is the tranquility of the soul with the expectation of good" [9]. Security is also defined as "the disappearance of what is feared" [10]. Politicians have defined security in accordance with the linguistic definition, which is "the safety and reassurance of the psyche and the absence of fear for human life or for what it involves in terms of interests, goals, causes, and means. This includes both individual and social security. [11] As for the linguistic definition of health, it means "soundness and wellness, and the absence of illness" [12]. In medical terminology, health is "an era or condition in which actions emanate from their place correctly" [8]. Health security is "the necessity to secure the basic and necessary health conditions to protect individuals from infectious diseases, epidemics, chronic diseases, diseases resulting from environmental pollution, injuries resulting from accidents, and all types of physical, psychological, and sexual violence" [13].

### 4.2 Examining the era of healthcare security in the Umayyad dynasty:

Islamic law emphasized the importance of healthcare care, including the treatment of diseases and taking preventive measures to avoid contracting them. The Umayyad dynasty followed this approach and focused on providing both curative and preventive medicine.

#### 4.2.1 Attention to medicine and physicians:

Islamic law emphasized the treatment of illnesses, as erad in the hadith of the Prophet Muhammad: "For every disease, Allah has given a cure. If the cure is applied to the disease, he will recover with Allah's permission" (Muslim). Similarly, the Prophet also said, "Seek medical treatment, for Allah did not create a disease without creating a cure for it, except for one disease, namely old age" [14].

As the Umayyad dynasty expanded its territories from China in the east to Al-Andalus in the west, its attention turned to various arts and sciences, particularly medical science. Focusing on the science of pharmacy and medicine allowed researchers to find novel treatments for diseases that were common in society at the time [15]. Caliph Marwan bin Al-Hakam was one of the first Umayyad caliphs to prioritize the medical sciences, and many books on medicine were translated during his era. This resulted in the prominence of many scholars in this field, such as Khalid bin Yazid bin Muawiyah bin Abu Sufyan, who was the first to translate books on medicine and chemistry [16]. Similarly, the famous Msirjawaih, also known as Msirjs, lived during the reign of Caliph Umar bin Abdul Aziz (99–101 AH; 717–720 AD) and translated the book of Ahron bin A'yan from Syriac to Arabic in the field of medicine [17, 18, 19].

In addition to emphasizing the translation of medical books, the era also valued physicians, and they held a special position. One of the most famous physicians of the Umayyad dynasty was Abu al-Hakam, who was a Christian physician skilled in medicine, medication, and medical compounds. Caliph Muawiyah bin Abu Sufyan (41–60 AH/66–680 CE) relied on him in the preparation of medications for therapeutic purposes, and he lived for over a hundred years [19].

As Ibn Atthal Al-Nasrani, the personal physician of Muawiyah ibn Abu Sufyan, was known by the nickname Abu Al-Ward [20, 21]. He was one of the most distinguished physicians in Damascus, and the Caliph held him in high regard, frequently seeking his advice and spending time conversing with him day and night. He was an expert in both single and

compound medications, including poisons and toxins, which Muawiyah often consulted him.

Another notable physician in the Umayyad Caliphate was Burmukh, who was a skilled doctor and had treated Muslimah ibn Abd al-Malik when he fell ill [22]. Moreover, the physician Tiyadhuq served as a private physician to Hajjaj ibn Yusuf and was renowned for his medical expertise, intelligence, and eloquence, which earned him a high status with Hajjaj [23, 19]. He was known for his proficiency in medicine and his wisdom [24].

Abd al-Malik ibn Said ibn Abjar was another famous physician in the Umayyad Caliphate, on whom Umar ibn Abd al-Aziz relied heavily in the field of medicine. He was one of the most skillful and talented physicians of his time [25]. He is known to say: "The stomach is the reservoir of the body, and the veins flow into it. Whatever enters it healthy results in a healthy chest, and whatever enters it sickly results in a sickly chest".

The practice of medicine was not limited to men in the Umayyad caliphate. One of the female physicians, Zaynab, from the Banu Udh tribe, was famous for her skill in treating eye pain, wounds, and surgery. Ibn Sina [26] described her as a woman who had enjoyed learning without missing anything and whose medicine had benefited the living and almost revived the dead [27]. Her reputation was such that poets mentioned her in their poems. For example, Al-Asbahani recorded the following poem: "I came across a woman from Banu Udh who applied kohl to my inflamed eye, and she said, 'Lie down a little until the medicine circulates in your eye.' So I lay down, and the poet said, 'Do you know what this poet is about?' I said, 'No, I swear to God.' She said, 'It is about me, and I am Zaynab, whom he mentioned, and I am the physician of Udh.' [28].

The city of Gondeshapur gained renown for its contributions to medicine [29], producing numerous renowned physicians over the centuries who achieved widespread fame in the medical sciences [30]. The Umayyad Caliphate recognized the significance of physicians as crucial pillars in maintaining health and well-being.

#### 4.2.2 Establishment of Bimarstan (hospitals)

During the Umayyad era, the creation of bimaristans (hospitals) was considered a golden age. Muawiya ibn Abi Sufyan established an organized hospital in Damascus in 60 AH/679 CE, near the Umayyad Mosque. The first actual Bimaristan was established during the reign of Caliph Walid ibn Abd al-Malik in 88 AH/706 CE [31]. The Bimaristan provided medical care and housing for blind and imprisoned lepers to prevent the spread of infection [32]. Both Al-Qalqashandi and Al-Maqrizi agreed that Caliph Walid ibn Abd al-Malik was the first to establish a Bimaristan in Islam [33, 34].

One of the bimaristans established during this time was the Bimaristan Dar Zaqqaq al-Qanadil in Fustat, Egypt, which specialized in the treatment of patients with leprosy during the Umayyad era [35].

In addition to established bimaristans, mobile bimaristans were also developed. These can be traced back to Abdullah ibn Zubayr, who was besieged in Mecca. A large tent, called Fustat, was erected to treat the wounded, with women providing water, treating wounds, and feeding the hungry [36, 31]. Mobile bimaristans were also established during the Hajj season and equipped with tools, first aid, and everything else necessary for the patients among the pilgrims. These Bimaristans were supported by a team of doctors and nurses [30].

#### 4.2.3 Hospital baths

During the Umayyad caliphate, public baths were established for the treatment of certain diseases. Al-Idrisi mentioned, "They enter it, and its water is heated by fire, and some of these baths are: Ain Muqaw'in, Ain Al-Shuraf, and others. Their water is hot all year round, and people from all walks of life come to them, such as those who suffer from paralysis, wounds, and scabies, and they stay in the water for three days, and by the grace of God, they are cured of it" [37]. Through this, it is clear that the Umayyad era was concerned with providing medical care, whether by providing doctors, hospitals, or hospital baths for some skin diseases that spread during that period, in order to maintain the health of individuals in the era and achieve public health security.

#### 4.3 Understanding preventive health security in the Umayyad era:

The Umayyad Caliphs were interested in implementing preventive measures to maintain people's health and stop the spread of diseases, many of which the Prophet Muhammad, peace be upon him, encouraged and which Islamic law promoted. The Umayyad Caliphs followed this approach, which was manifested in the following measures.

##### 4.3.1 Personal hygiene:

Personal hygiene is one of the most important tools for achieving personal and community health security. The Prophet—peace be upon him—encouraged personal hygiene. Abu Huraira reported: The Messenger of Allah, peace be upon him, said: "If a river was at your door and he bathed in it five times a day, would you notice any dirt on him?" They said, "Not a bit of dirt would be left." The Prophet added: "That is the example of the five daily prayers by which Allah removes evil deeds." Therefore, ablution removes impurities and dirt [38], and when performed five times a day, the highest levels

#### 4.3.2 Cleanliness of houses and streets.

The Umayyads were concerned about protecting the environment from pollution, especially by keeping houses clean after rain by lifting mud in front of the houses. Ziyad ibn Abih, the governor, used to take care of the owner of each house after rain, and if the owner did not remove the mud from the front of his house, it was thrown into his house. The people then cleaned their roads of dirt and trash. In addition, the Umayyads established what are now known as municipalities, and they bought slaves and assigned them to clean the roads of impurities and garbage.

#### 4.3.3 Environmental protection from pollution and disease control:

Environmental pollution is the most important risk to health security at any age. Therefore, the Umayyad era directed its attention to protecting the environment from pollution by reclaiming the land, planting trees, and reviving the dead land. The Umayyads were interested in revitalising the land, cultivating it and planting trees and vegetation because of their role in protecting the environment from pollution. The governor, Ziyad ibn Abih, used to cut a branch and leave it for two years; if it did not grow, it was taken from him. Moreover, Umar bin Abdulaziz issued a decree that said "Whoever revives a dead land by building on it or by cultivating it, as long as it is not from the money of people who bought it with their own money, or if they revive some of it and leave some of it, I will grant them the right to revive the part that they revived through building or cultivation" [40]. In addition to using trees to purify the air from pollution, the era was interested in planting trees around hospitals due to the positive psychological impact that they have on patients [41].

As the Umayyad era was exposed to numerous epidemics and plagues almost twenty times [42], one of the most famous of which occurred in 49 AH/669 AD, 69 AH/688 AD, 87 AH/706 AD, and 131 AH/748 AD, some Umayyad caliphs and people resorted to the desert, mountains, and isolated places to avoid the disease outbreak in the cities or infected areas [43], following the Prophet Muhammad's saying, "Plague is a calamity that was sent as a punishment to the Children of Israel or those who came before them. So, when you hear of it in a land, do not approach it; and if it occurs in a land, you are in, do not flee from it". The Prophet, peace be upon him, was the first to mention isolation in the event of infectious disease outbreaks, and the Umayyad caliphs followed this approach.

#### 4.3.4 Health awareness:

Is the cornerstone of daily behavioral patterns that significantly affect the health status of individuals [44]. Health awareness is a fundamental aspect of the healthcare system, acting as a protective shield against some diseases and providing people with accurate information about their causes, symptoms, and prevention methods, making them more aware of how to protect themselves [44].

Allah Almighty has forbidden eating certain foods that can harm human health, including dead animals, blood, pork, and anything that is not slaughtered in the name of Allah. He also forbade eating certain animals that die naturally or from strangulation, beating, or falling, or eating the meat of an animal that has been sacrificed to something other than Allah (Al-Ma'idah: 3) [1]. The Prophet, peace be upon him, also prohibited eating, because it causes many diseases, as reported by Al-Miqdam ibn Ma'dikarib Al-Kindi, who said: 'I heard the Messenger of Allah, peace be upon him, say, 'The son of Adam fills no vessel worse than his stomach. Sufficient for him are a few morsels to keep his back straight. If he must eat more, then a third should be for his food, a third for his drink, and a third left for air'. Furthermore, the Prophet, peace be upon him, encouraged fasting by saying "Fast, and you will be healthy" [46].

During the Umayyad caliphate, the rulers disseminated health education among the people, raising awareness about the dangers of diseases and making it their responsibility to take care of their own and others' health [47]. For instance, it was reported that Mu'awiya bin Abi Sufyan had lunch with one of his sons and his servant, Ubaidullah bin Abi Bakra. The son ate excessively, which caught Mu'awiya's attention, and Ubaidullah bin Abi Bakra intended to signal to the son to stop, but he could not. The boy continued to eat until he finished. When the boy's mother asked him what he had done, he complained of sickness. Mu'awiya then remarked "I knew that his eating would cause him illness" [22]. The story illustrates the importance of healthy eating habits and how they were promoted in society during that time.

Similarly, Hajjaj bin Yusuf imprisoned an Arab for seven years for polluting the area around the city of Wasit with his waste. [48] reported this incident to prevent others from committing similar acts, highlighting that such behaviour promotes an unhealthy culture in society. The Hajjaj act was intended to raise awareness of health and hygiene.

Another example of health education is highlighted in a report that describes how Hajjaj bin Yusuf explained the nature of the country to one of the governors he was appointed to govern. He said, "I have appointed you as a ruler over a land with black rocks, bees, and saffron plants" [49]. This explanation indicates the importance of understanding the local environment and how it affects people's health.

Furthermore, it was reported that an Arab wanted to eat with Hajjaj bin Yusuf, who instructed him to wash his hands

before lunch [50]. This anecdote shows the significance of hygiene and cleanliness for good health.

#### *4.3.5 The army is the backbone of a nation and a source of its strength.*

The Umayyad era focused on the health of its soldiers by taking preventive measures to avoid diseases and providing healthcare before or after the illness occurred. The selection of military locations was also carefully considered, and it was essential to have clean water and food sources. Hajjaj bin Yusuf, before sending his troops to conquer a new land, ensured that there were available water and food sources. He enquired about the region of Kerman and the governor informed him that the water supply was scarce and the food source inadequate, which would adversely affect the health of the soldiers [51]. Therefore, it was necessary to look for better locations that would preserve their health.

#### *4.3.6 The Umayyad era also took great care of people with special needs.*

The Caliph Al-Walid bin Abd al-Malik established a record for the sick to receive care, saying, "I believe that time is better for its people than health." The sick were brought to him to receive charity [52]. The Caliph Umar bin Abdul Aziz appointed a leader for every blind sheikh, saying: "Look at the blind Sheikh al-Jazari who goes to the mosque before dawn. Pay a leader's fee for him." For every two lepers, he assigned a servant [51]. Thus, the Umayyad era took care of people with special needs as a means of achieving their health security, whether through providing care or allocating funds to them.

#### *4.3.7 Preventive measures for prisoners' health:*

The caliphs of the Umayyad dynasty were keen on providing preventive healthcare to prisoners to ensure their health and well-being. This is evident in the writings of Caliph Umar bin Abdul Aziz to his governors, in which he said: "Do not leave any Muslim prisoner in chains who cannot stand to pray, and do not keep anyone in confinement except for someone who is wanted for murder. Be generous to them with gifts that will help them with their food and clothing and keep them in good health. Set aside a small amount of money that can be paid to them every month [53]. He ordered that they be provided with adequate food and clothing and that they be taken care of to prevent diseases from spreading among them. He also ordered sick prisoners to be treated and called for the provision of appropriate clothing for the different seasons. He said: "It is incumbent upon you to clothe them in fur in winter and in two garments in summer, and so on, according to what is in their best interest [54].

In addition to caring for the physical health of the prisoners by providing them with food and clothing, the era also paid attention to their mental health. Caliph Umar bin Abdul Aziz ordered the prisoners to be inspected and their conditions to be assessed. He ordered that they be visited at least once a week [54].

Through these measures, the Umayyad era demonstrated its care for prisoners' health by providing them with necessary food, clothing, and medical care, as well as safeguarding their rights as human beings.

#### *4.3.8 Precautionary measures for animal health:*

Islam is a religion of compassion, and compassion for animals is one of the principles of Islamic law. Abu Hurairah reported that the Prophet said, "While a man was walking on the road, he became very thirsty. He found a well, climbed down into it, and drank from it. Then he came out and saw a dog panting and licking the ground because of thirst. The man said to himself: 'This dog is as thirsty as I was.' So, he went back down into the well, filled his shoe with water, and gave the dog a drink. God was pleased with his action and rewarded him by forgiving his sins".

The Umayyad era also took care of the animals, and there are many directives that indicate their concern for their health. For example, Umar ibn Abdul Aziz wrote to one of his workers, "Do not burden anyone with a heavy bridle and do not let anyone drag a heavy load with an iron-tipped plough. It has become clear that in Egypt there are camels that carry loads of a thousand pounds. When you receive this letter, I do not know if the camel is carrying more than six hundred pounds." [55].

It is clear from the above that the Umayyad era cared about the health care of animals and prohibited anything that might weaken or exhaust them.

#### *4.3.9 The role of endowments in health security.*

In addition to the strategies previously outlined in this research, it is essential to underscore the role of endowments, or 'Waqf', as a means of achieving health security during the Umayyad era.

Endowments are a significant aspect of Islamic culture and governance, representing a form of voluntary charity and social welfare instituted for the benefit of the public [56]. During the Umayyad era, endowments played a crucial role in supporting health care infrastructure and services.

Financial contributions from the wealthy, including rulers, merchants, and private individuals, were often designated for

health care purposes, such as the maintenance and operation of hospitals (Bimaristans) and pharmacies, and the provision of medical supplies and salaries for medical staff) [57]. These endowments enabled the establishment and sustained functioning of critical health institutions.

Moreover, endowments also served a broader social welfare function by ensuring that health care was available to all, regardless of social or economic status. The resources from endowments facilitated the provision of free medical care to those who could not afford it, thereby contributing significantly to the overall health security of society) [58].

In conclusion, the practice of endowments was a vital mechanism for health security during the Umayyad era, not only by facilitating the functioning of health care institutions but also by contributing to health equity."

#### *4.3.10 Pharmacies and their role in supporting healthcare and medical efforts in the Umayyad State*

In exploring the means of achieving health security during the Umayyad era, it is essential to acknowledge the role of pharmacies. Prior to the Umayyad era, medical treatments were typically home-based and incorporated into daily life. However, as the field of medicine became more specialized, the need for dedicated centers for the preparation and distribution of medicines arose [59].

During the Umayyad era, pharmacies, or 'Saydalah', began to emerge as critical healthcare institutions. These establishments were among the first instances of dedicated spaces where medicinal substances were stored, prepared, and distributed, reflecting the growing sophistication of health care practices [60]. They were often attached to bimaristans (hospitals) but could also operate independently, providing medicine to those who needed it.

Pharmacies during this period were not only centers for the dispensation of medicine but also hubs for medical knowledge. Pharmacists, known as 'Saydalani', were trained in the knowledge of medicinal plants, the preparation of drugs, and dosages, marking the birth of pharmacy as a specialized profession. The Saydalani were well respected and considered essential to the functioning of the healthcare system [61].

Thus, the emergence and development of pharmacies represented a significant advance in health security during the Umayyad era. By providing organized, reliable access to medicinal treatments, pharmacies enhanced the community's ability to prevent and treat illnesses, thus contributing to overall health security.

#### *4.3.11 Highlighting the Role of Hospitals and Prominent Medical Practitioners in Damascus During the Umayyad Era*

The trio of studies by Dols (1984) [62], Sabra (2009) [63], and Al-Kassimi (2019) [64] provide a comprehensive exploration of health security, medical care, and public health services during the Umayyad era. Dols and Sabra extensively discussed the influences, advancements, and cultural contributions that shaped the distinctive identity of Islamic medicine during this time, including the development of hospitals and medical schools and the practice of medicine itself, which was significantly influenced by Greek and Indian medicine.

Sabra further explored the public health measures and social welfare policies of the Umayyad Caliphate, such as quarantine and sanitation strategies, while focusing on the role of physicians and hospitals in the cities of Damascus and Kufa. The effectiveness of these measures significantly impacted disease prevention and public health enhancement.

Al-Kassimi recognized the pivotal role of hospitals, as well as notable male and female physicians, in achieving health security during the Umayyad era. Hospitals like Al-Mansouri provided specialized care for both men and women, and practitioners like Jabir ibn Hayyan and Rufaida Al-Aslamia made significant contributions to their fields.

In conclusion, these studies collectively highlight the Umayyad era as a significant period in the development of health security, public health, and medical care within Islamic society. They underline the importance of a multifaceted approach to healthcare, which was exemplified by the combination of institutions, policies, and individual practitioners who were all instrumental in the medical advancements of the era.

## **5 Summary and Recommendations**

This discussion highlights the extent to which the Umayyad era was concerned with public health and the means of achieving it. This was evident through the adoption of medical measures, such as the emphasis on medicine and physicians, who held a special status during the Umayyad era due to their role in translating medical books into Arabic and providing medicines to patients. The Umayyad era was also keen on establishing fixed and mobile hospitals, allocating sections of hospitals for the elderly and some contagious diseases such as leprosy, and focusing on the construction of therapeutic baths. Additionally, the Umayyad era provided opportunities for some women to practice medicine and offer treatment to patients. Furthermore, the Umayyad era paid attention to preventive measures to protect against diseases through promoting personal hygiene, keeping homes clean, and avoiding consuming prohibited foods due to their potential harm to human health. The era also emphasized the importance of following proper table manners

as defined by the Prophet Muhammad. Furthermore, the era took preventive measures to prevent the spread of diseases and epidemics, such as going out to remote areas, isolating affected regions, planting trees to purify the air from pollution, and other measures.

In addition to caring for the health of soldiers in terms of food and drink and for people with special needs, the era allocated salaries for them from the treasury [19]. The era also guaranteed the rights of prisoners in terms of prayer, food, and clothing, taking into account their psychological well-being. Furthermore, the Umayyad era cared for the health of animals and prevented their exploitation in various works [55].

Based on the results of the main study, it is recommended to consider the rights of citizens to provide preventive and curative medicine, priorities medical studies and doctors for their important role in achieving public health, and expand the construction of hospitals to provide health care for patients. In addition, special attention should be given to people with special needs, such as the disabled, the sick, and the blind, by providing them with the necessary care and funds and ensuring the rights of prisoners. Personal hygiene and the cleanliness of homes and streets should be considered to prevent the spread of diseases. Additionally, the expansion of tree planting to purify the air and the resort to isolation and remote areas in case of epidemic spread or infectious diseases should be considered, and trees should be planted around hospitals to consider the psychological well-being of patients. It is also recommended to avoid consuming foods that are prohibited due to their proven danger to human health while adhering to the manners of eating as stipulated in Islamic law.

## 6 The Implications

The study's implications suggest that achieving health security was a significant concern for the Umayyad era. It sheds light on the Umayyad dynasty's approach to health security, which involved both curative and preventive measures. The establishment of bimaristans (hospitals) during the Umayyad era was a significant achievement and provided medical care and housing for the blind, lepers, and wounded. Furthermore, the Umayyad era placed an emphasis on the translation of medical books and the importance of physicians, with both male and female physicians prominent during the Umayyad caliphate.

Furthermore, the Umayyad era was interested in promoting preventive health measures to maintain people's health and stop the spread of diseases. This approach was manifested in personal hygiene, cleanliness of homes and streets, and environmental protection from pollution and disease control. Health awareness was also a fundamental aspect of the healthcare system in the Umayyad Caliphate, and it was disseminated among the people to raise awareness about the dangers of diseases and promote healthy habits.

In addition, the Umayyad era took great care of people with special needs, such as the sick, the blind, and the lepers, as a means of achieving their health security, whether through providing care or allocating funds to them. The era also provided preventative healthcare for prisoners to ensure their health and well-being, as well as safeguarding their rights as human beings. The Umayyad era demonstrated its care of animals by prohibiting anything that might weaken or exhaust them.

Overall, the Umayyad era's emphasis on health and well-being can be seen as an indication of their commitment to promoting a healthy and prosperous society. The measures they took to ensure personal hygiene, cleanliness and disease prevention were ahead of their time and remain relevant today, providing valuable information to policy makers and scholars interested in public health and healthcare.

## 7 The Limitations

- 7.1 The study has limitations in terms of scope and sources.
- 7.2 It only focusses on the Umayyad dynasty and does not provide a comparative analysis of other dynasties or civilizations in the region.
- 7.3 The study primarily relies on historical texts and sources.
- 7.4 The text provides a narrow view of health and healthcare during the Umayyad period, focusing primarily on personal hygiene and preventive measures.
- 7.5 There is limited information on the actual implementation of health measures during the Umayyad period and the extent to which they were successful in preventing or controlling diseases.
- 7.6 The study primarily focuses on the Umayyad era's policies and practices towards health, with limited information on the experiences and perspectives of ordinary people.
- 7.7 Further research is needed to provide a more comprehensive understanding of health and healthcare during the Umayyad period, particularly from the perspectives of ordinary people.



## 8 The Future Directions

- 8.1 Further research can expand on the study's findings and explore the impact of the Umayyad dynasty's approach to health security on other Islamic and non-Islamic societies. A comparative analysis of other dynasties or civilizations in the region can provide a more comprehensive understanding of health security in Islamic history. Furthermore, future studies can incorporate archaeological and anthropological methods to provide more concrete evidence and a clearer picture of the healthcare system of the Umayyad dynasty. Further investigation into the role of physicians and the establishment of bimaristans during this era can also be fruitful. Overall, a deeper exploration of health security in Islamic history can be valuable for policy makers and healthcare providers today and can provide insight into the successes and challenges of past approaches.
- 8.2 Further research is needed to provide a more comprehensive view of healthcare during the Umayyad period, including medical treatments and healthcare systems. Although the study focused on preventive measures and personal hygiene, a more in-depth understanding of medical treatments and the availability and accessibility of healthcare services during this period can shed light on the successes and limitations of the Umayyad approach to health security.
- 8.3 It would be useful to explore the impact of the Umayyad era's health policies on the health outcomes of ordinary people, including disease prevalence and mortality rates. By examining health outcomes, researchers can better understand the effectiveness of the Umayyad approach to health security and identify areas for improvement.
- 8.4 The period of Umayyad could serve as a case study to explore the role of religion and cultural values in shaping health beliefs and practices and how these factors intersect with political and social structures. A deeper understanding of the intersection of religion, culture, politics, and social structures can provide information on how these factors influence health outcomes and can inform the development of culturally appropriate health policies and interventions.

In conclusion, future research can build on existing findings to provide a more comprehensive understanding of health security in the Umayyad period and its relevance for contemporary healthcare practices. By exploring the successes and limitations of past approaches, policymakers and healthcare providers can identify best practices and develop effective and culturally appropriate health policies and interventions.

## Conflicts of Interest Statement

I declare the author has no competing interests or other interests that might be perceived to influence the interpretation of the article.

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