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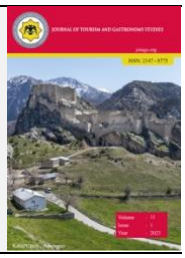

Comparison Study on Honey in the Islamic Nutrition Culture; The Status of Prophet Muhammad's (Pbuh) and Avicenna's Applications According to Current Scientific Studies

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Abstract

Honey is a special food that has a special place in Islamic nutrition culture and is used for the protection-treatment of health in Islamic sources. In the study, first of all, the use of honey for Islamic nutrition, culture and health purposes was investigated by scanning the sources of the Quran, Hadiths, Al-Tibb al-nabawi and Al-Qanun fi al-Tibb. In addition, secondly, the place of honey in today's scientific world was created by scanning scientific research materials obtained from databases. Research data was carried out by document scanning and these data were analyzed by descriptive analysis method. As a result, it has been seen that honey, which has a special place in Islamic culture, has made important contributions to the field of medicine in the past and today. In this context, religious and scientific data overlap with each other. The data obtained from the study were interpreted from a gastronomic perspective and suggestions were made.

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INTRODUCTION

Foods constitute an important part of our life with its health and culture dimensions. Societies create their own culinary culture by blending the nutrients they can reach with their cultural elements in line with their own means. However, from the past to the present, it is possible to see that people have attributed many meanings and functions to foods outside of the kitchen and that foodstuffs are used to meet many needs other than nutrition.

According to the report of Gürhan (2017) and Merdol (2012), they have classified the factors that affect the food choices of societies as traditional, social, geographical, biological, psychological, economic, political, technological, globalization, advertisements, media, and fashion.The concept that Merdol (2012) expresses as traditional factors is that "the values and beliefs of societies about food are the factors that affect their food choice". An example of this is that Muslims and Jews do not consume pork and Indians do not consume beef. Nutrition; combined with concepts such as attributing sanctity to food, having some rituals, social structure, and health, it formed the most basic vital area of culture and expressed the parts of a whole by intermingling with each other (Emiroğlu, 2013; Gürhan, 2017).

Humanity has given special importance to certain foods over others, and from the perspective of social and natural sciences, it can be said that honey holds a unique value. The use of honey as a food is as old as human history. In the words of Crane (2001), honey has emerged as one of the indispensable food sources in human nutrition from past to present. Since ancient times, bees have been a part of visual history and the subject of cave wall depictions made by prehistoric people. These depictions include wall paintings for the bees and honey collection. The areas where honey has been used from past to present are very diverse, and these are not only used as food; It can be listed as seasoning for meals, food preservatives, sweeteners in pastries and sweeteners in bread making, making alcoholic and non-alcoholic beverages, vinegar, dyeing, jewellery, cosmetics, perfume making and even funeral ceremonies and mummification processes (Lenger, 2010).

All religions and cultures have adopted honey. In Egypt, bees and honey have an important role in religious ceremonies and god offerings. The bee was associated with the royal family and the spirits of their deceased members. In Hinduism, honey was offered to temples in the name of gods (Cilliers & Retief, Bees 2012: p.8; Nayik et al., 2014: p.6).

Religious rules have a significant influence on the formation of Islamic food culture, just as in other societies. As a result, honey holds a special place as a food in the Islamic perspective, as seen in the Quran and Hadith. In these sources, in other words, in Al-Tibb al-nabawi, honey is expressed as a healing food. For this reason, important literature about honey has emerged in the Islamic tradition. It is seen that Ibn-i Sina, one of the most important medical doctors of his time, did not remain indifferent to this and mentioned many benefits of honey in his work called Al-Qanun fi al-Tibb. As a result of research conducted today, many properties for the healing of honey have been revealed and different medicinal aspects of honey are still being discovered. However, there is no study in the literature that mentions the use of honey in detail in the works of Al-Tibb al-nabawi and Al-Qanun fi al-Tibb.

Gastronomy has a broad perspective encompassing fields such as history, anthropology, religion, biology, medicine, and nutrition science. Therefore, the Gastronomy perspective makes it easier to present a comprehensive outlook that can include both social and scientific research on honey. In addition, the fact that the gastronomy field provides products to the sector is very important for the direct reflection of the results that may arise from the studies

to the consumer. Those interested in gastronomy, which is included in the social sciences, and researchers in the field of gastronomy, if they have not transitioned from the sciences to the field of gastronomy, may have difficulties in understanding the results of the studies presented by the medical or natural sciences due to the inability to understand the terms and some mechanisms. Considering the aforementioned difficulties, this study transfers the scientific studies about honey to the field of gastronomy in an easy-to-understand way. In the content of the study; In the Qur'an and Hadiths, which are the primary sources of Islamic nutrition culture, resources about the healing of honey are included, the therapeutic use of honey in Prophetic Medicine and Avicenna's Canon medicinae is explained, and the place of honey in today's medicine is mentioned. In addition, useful information has been tried to be included for the sector employees who want to benefit from the healing of honey in the field of gastronomy, and this information is included in the conclusion part of the study. For these reasons, the study will make an important contribution to the literature.

Materials and Methods

Materials

It is seen that scholars in the Islamic world put forward concepts such as halal, haram, and makruh based on the Qur'an and Hadiths as the primary source, and the food/beverage consumption culture of Muslims is shaped in this context. In addition, honey has been used in Islamic sources for health protection and treatment. Such information is included in Al-Tibb al-nabawi in Islamic literature. In this study on Islamic culture, especially focusing on the sources of the Prophet's practices, which hold an important place in Islamic culture. In Al-Tibb al-nabawi, honey is mentioned in some places throughout the book and there is a special title about honey. In the Al-Tibb al-nabawi, verses and hadiths related to the subject are also included. References and comments from the Qur'an and hadiths on the subject are included in this book. The Canon medicinae (Original name: Al-Qanun fi al-Tibb) written by Avicenna in the 11th century and consisting of 14 volumes is evaluated as a historical source. In the Al-Qanun fi al-Tibb, perhaps the most important work of the world-famous Turkish-Islamic physician Ibn-i Sina, honey is used to perform some special medical functions. At the same time, Al-Qanun fi al-Tibb is also mentioned in Ibn-i Kayyim al-Cevziyya's Al-Tibb al-nabawi. On the other hand, a comparative approach has been put forward by examining the current studies on the effect of honey on health in detail.

Methods

The study investigated the use of honey for Islamic nutrition, culture, and health purposes. The first part of the study focused on examining the relevant literature from sources such as the Qur'an, Hadiths, Al-Tibb al-nabawi, and Al-Qanun fi al-Tibb. In addition, secondly, the place of honey in today's scientific world has been investigated. The second part of the study investigated the place of honey in today's scientific world, using scientific research materials obtained from databases. The collection of research data was carried out by document scanning. Update review and historical document analysis is the analysis of the contents of written documents. It is a qualitative method that aims to identify and analyze systematically. The method, which is based on the principle of examining many printed or electronic materials, aims to examine and evaluate documents and to create an understanding on the subject by obtaining meaningful results (Kıral, 2020).

According to various researchers, the analysis process of documents; analysis requires review (superficial review),

reading (detailed review) and interpretation. This iterative process combines elements of content analysis and requires thematic analysis. Thematic analysis is a form of pattern recognition in data, and emerging themes become the analysis category. Content analysis is used here. This includes the processes of translating (transcription) and categorizing the information related to the basic questions of the research (Corbin & Strauss, 2008; Strauss & Corbin, 1998; Kıral, 2020). In this study, the data collection process, the honey expressions in the first part of the research materials were classified according to their subjects, and data were obtained. In these sources, the parts where the word honey is mentioned were read and notes were made for the places suitable for the study. The data collected within the scope of the study were analyzed by descriptive analysis. According to the data obtained, links to the past and the future are divided into subject headings. After examining various sources, themes were created in this study, and each theme is presented as a heading in the findings (based on sources such as the Qur'an, Hadiths, Al-Tibb al-nabawi, and El-Kanun Fi't-Tıbb). These themes are listed below in Table 1.

Table 1. Theme, source and sub-titles used in the study

Sub-titles used in the study	Themes (Key words)	Resources
Verses about Honey in the Qur'an and Their Comparison with Current Information	Honey, Bees, Flovers, Build its cells, Follow the ways	Qur'an, Scientific literature
The Use of Honey in Prophetic Medicine	Honey	Hadiths, Al-Tibb al-nabawi
Honey in Avicenna's Al-Kanun Fi't-Tibb	Honey	Al-Qanun fi al-Tibb, Al-Tibb al-nabawi
Studies on Honey in Contemporary Medicine	Honey, Health, Health benefit	Scientific literature, Qur'an, Hadiths, Al-Tibb al-nabawi
Intestinal Health and Honey	Honey, Health, Health benefit, Intestinal health, Probiotic, Prebiotic; Various intestinal diseases (IBS, Crohn's, UC...)	Scientific literature, Al-Tibb al-nabawi (Researched for special use in Al-Tibb al-nabawi)

Results

Verses about Honey in the Qur'an and Their Comparison with Current Information

Honey is an animal food and there is some information about the production of this product in religious sources. The most striking thing in this information is that the bee, as the animal that makes honey, gave its name to a chapter in the Qur'an. In the relevant surah, the issues that Allah revealed to the bee and directed to honey production by feeding on various fruits and flowers are as follows. The Bee 68: “And thy Lord taught the Bee to build its cells in hills, on trees, and in (men's) habitations”. The Bee 69;…Then to eat of all the produce (of the earth), and follow the ways of thy Lord made smooth: there issues from within their bodies a drink of varying colors, wherein is healing for men: verily in this is a Sign for those who give thought.! (URL1).

Today, the works created in the field of art benefit from the productive and natural capacities of bees used in making honeycombs. The reason for this is that bees design the geometry of the honeycomb by designing them like natural sculptors (Boynukalın, 2017), mathematicians, engineers and architects. The honeycombs knitted by bees are in the shape of a regular hexagon, and this shape is the only geometric shape that provides minimum area and maximum volume with the least material and the shortest size. Each bee; Although he starts to weave honeycombs from different places and from different directions, he proceeds by knitting all the honeycomb eyes as copies of each other, towards a single point without any trial and error, with beeswax, which has its own secretions in the shape of a regular hexagon. As a result, the honeycomb cells converge in the middle without their merging points being

obvious, and surprisingly, all the honeycombs are placed where they should be mathematically (Topsakal, 2014). Therefore, with an extraordinary system, bees use the world's best and most robust storage and preservation method to protect their honey. By designing the honeycombs as hexagons, the combs can carry kilograms of honey with great resistance (Şimşek, 2009).

Many studies have been done about bee life from past to present. These studies provide us with interesting information about bee life. However, many issues that have not yet been clarified attract the attention of scientists. Some of the conveniences mentioned in the verse have been revealed with today's science and technology, and some issues still remain mysterious. Some of the mentioned information is as follows. The features of flowers such as appearance, smell, shape and color (Doğaroğlu, 2009; Genç & Dodoloğlu, 2015) are effective in finding them easily. In some cases, the body odor left by a bee that has collected nectar from a flower before itself is perceived in the flower (Doğaroğlu, 2009), this occurs when the pheromone called "2-heptanone", which is applied on the flowers and produced by the bees, is marked after the flower visits. In this way, other bees are prevented from wasting time by visiting flowers whose nectar/pollen has been removed before (Genç & Dodoloğlu, 2015). With this scent, the bee realizes that the nectar has been exhausted by visiting the flower before, and thus it moves away from the flower without checking the flower (Doğaroğlu, 2009). In addition, field bees producing Nasanof pheromone mark the source of nectar and make it easier for other bees to locate the source (Genç & Dodoloğlu, 2015).

In order for the bee to fill the honey crop, it is necessary to make 1100-1446 visits for small flowers and close to 100 visits for large flowers (Doğaroğlu, 2009). A bee can bring an average of 30-40 mg of honey to the hive each time, and approximately 60 nectar trips must be made to fill one cell. If the nectar source is clover, 1000-1500 clover flowers should be visited each time. Bees use a very interesting communication system. When bees find a food source that can be used anywhere, they notify other bees of the source with special movements called bee dance when they return to the hive. The type and speed of this dance has a special meaning. Thus, messages such as the direction, distance and richness of the source can be given to other bees watching this dance, and the location of a source kilometers away from the hive can be easily found (Genç & Dodoloğlu, 2015).

Albert Einstein said that if the bees disappeared from the face of the earth, humanity would only live for 4 years and that if there were no bees, the plants could not be fertilized; He stated that plants, animals and therefore humans cannot sustain their lives. This expression clearly expresses our dependence on bees (Boynukalın, 2017). According to the report of Genç and Dodoloğlu (2015); German researcher Karl Von Frisch, in his experiments, determined that bees can distinguish the color blue, perceive the rare red color in nature as dark gray or black, and that this color does not attract their attention when choosing flowers. It is seen as extremely interesting and thought-provoking that none of the flowers that need bees for fertilization are completely red. If any bee, for example, started to collect pollen from the sainfoin while carrying out pollen collecting activity, it collects pollen only from the sainfoin until it completes its load. The pollen used by the bees as food is collected by the bees in a way that prevents different plant species from crossing with each other during the harvesting activity. Thus, it ensures the continuation of plants and other living things that consume plants. In another experiment, it was determined that sugar syrup was given to the bees at a certain time or a few hours of the day, and then the bees visited the place where the syrup was given at these hours, and even if the syrup was not given, they continued their visit at these times in the next trips. To find out what the bees use to set time, the researchers conducted the experiment in the dark. However, the same result was obtained

and the bees continued their visits at the specified times.

The Use of Honey in Prophetic Medicine

Although some of the hadiths in the medical sections of the hadith sources reflect the period about the medical knowledge and practices of the time, it is very difficult to say that the medicine of the Prophet was fed only from the history and traditions of the period. For example, the word "to be ordered" in the hadith "I was ordered to clean my teeth" (Ahmed b. Hanbal, 2014, I, 337; III, 490) suggests the source of knowledge. The hadiths "There are 360 bones in the human body" (Abu Dawud, Adab 172) contain information that was not possible to know at that time. Similarly, the hadiths mentioning the quarantine practice in epidemics have characteristics that go beyond the period in which they were mentioned. For this reason, it seems reasonable and possible to think that just as Allah (swt) made his Prophets a mediator in conveying his orders and prohibitions to people, he might have informed his envoys in the same way in some matters involving the field of medicine. In other words, it is difficult to say that the source of all hadiths about medicine is the Arab tradition (Şahyar, 2020).

It is seen that many works have been written in the field of Medicine in the Islamic literature. While Muhaddis (Muhaddis is an Islamic title given to those dealing with the science of hadith) reserved a special place for the medical department in hadith books, many others, such as Abu Nuaym İsfehani, Ebu Abdullah Ziyâ al-Makdisi and Ibn Kayyim al-Cevziyya, also produced independent works on this subject. In Ibn-i Kayyim al-Cevziyya's Al-Tibb al-nabawi, there are many details about the ways in which the Prophet's medicine was applied, that is, useful information that the Prophet (pbuh) applied himself and recommended to others (Öztürk, 2019). In Prophetic Medicine, besides being a food ingredient, honey was also used in the treatment of various ailments. Some of the hadiths that emphasize the healing of honey are as follows:

- There is no better drug than honey syrup (C. Sağir, 2/125; F. Kadir, 5/454.).
- There is nothing as healing as honey for the sick (Abu Nuaym).
- Eat honey to strengthen memory! (M. Advice).
- One of the three things that nourishes the body is to eat honey (Shir'a).
- I recommend cassia and sennut (butter, honey, dates and cumin). Because they are a panacea other than death (İ. Mâce, Medicine H. 3457.).
- Whoever takes a spoonful of honey in the morning, three days a month, will not suffer a major illness" (Ibn-i Mace, C.9. 3450).
- The Prophet (pbuh) stated that healing is found in three things, and these are cupping, drinking honey syrup and cauterizing with fire according to the type of disease, but he did not like cautery (Bukhari, 5680; Muslim, 3691).
- "Do not give up on two sources of healing, Honey and the Qur'an." (Ibn Mace, Medicine, 7; Hakim, 1990, 4/200; Kenzu'l-Ummal, h. No: 28102).

In the 82nd verse of Surah Isra, Allah Almighty said, "We send healing and mercy from the Qur'an to the believers" and stated that the Qur'an has the quality of healing for believers. Al-Cevziyya on the mention of honey together with the Qur'an "The Prophet (pbuh) brought together the local medicine and the heavenly medicine, and people's giving up the prophetic medicine is like giving up the healing of the Qur'an", which has the quality of

healing. In addition, he stated in the work that the Qur'an is a complete and complete cure for all heart and body diseases, diseases of this world and the hereafter, and that the secret of reaching this healing is loyalty, faith, firm belief (belief) and fulfilling the conditions (Öztürk, 2019).

There are the following statements about the benefits of honey in Tıbb-ı Nebevi. Honey has many benefits. Honey; benefits the elderly and those with phlegm. It prevents food from spoiling. For example, when fresh meat is put in honey, it preserves its freshness for three months. Similarly, if zucchini, cucumber, cucumber and eggplant are added, honey prevents these products from spoiling. In addition, honey keeps many fruits intact for six months. It protects the corpses of the dead. He is called: "Reliable guardian". However, it has no side effects and is less harmful than other sweets. It indirectly harms those with bile. But this harm is avoided when used with vinegar and the like; it even becomes very useful this way. Honey; it cleans the dirt in the intestines, veins and other places and ensures that it is thrown away. In a hadith (Bukhari, 5684; Muslim, 5731): The Prophet (pbuh) recommended honey syrup to a patient suffering from diarrhea and asked him to drink honey syrup (3 or 4 times) until the patient's (diarrhea) complaints subsided. In the patient who drank the syrup for the first time, the complaint of diarrhea first increased, and the diarrhea stopped after the last drink of honey syrup. The Prophet's (pbuh) making the patient drink honey over and over has a unique meaning: "The amount of medicine must be equal to the amount of disease (Öztürk, 2019). Comparison of today's medical use of honey for this purpose is included in the "Intestinal Health and Honey" title.

In general, honey is food with food, drink with beverages, refreshing with refreshing, pomade with pomades (oily ointment, oily cream). In this sense, nothing superior, similar to, or close to it has been created for us regarding its usage area. The Prophet (pbuh) drank it on an empty stomach. In this practice of the Messenger of Allah, there is an unprecedented secret in terms of protecting health (Öztürk, 2019).

Honey in Avicenna's Al-Qanun fi al-Tibb

As a result of the exemplary life and practices of the Prophet (pbuh), Muslim scholars worked in the field of medicine, and as a result, many skilled physicians were trained. In the next period, Islamic physicians made great contributions to medical science (Yüksel, 2020). Medicine XVII. It continued its development in Islamic civilization until the 19th century. Thus, important physicians such as Ibn Sina, Al-Kindi, Ibn Rushd, Ibn al-Nefis, Abu Bakr Er-Razi and Zehravi were trained in the Islamic world. (Ağırakça, 2004; Şahyar, 2020). According to the testimony of George Saliba at Columbia University: It is assumed that the spirit of the Western Renaissance and Modern Science was crystallized by the work of Copernicus. Copernicus was an astronomer, clergyman, and medical doctor of his time. In an article in the literature in recent years, it has been seen that Copernicus studied at the Padua Medical School, which gave medical education in the 1500s, and that the works of Avicenna were taught in this school, and that Copernicus used Avicenna's prescriptions in his medicines. However, in many articles published in foreign languages, it is stated that Turkish-Islamic Medicine has made a great contribution to Western Medicine (Dereköy, 2019). Islamic scholars have advanced in the field of medicine as well as in different branches of science, inspired by the Prophet (pbuh). Thus, they advance by keeping their horizons wide in terms of medicine and science. Al-Qanun fi al-Tibb, one of the greatest works written by Ibn Sina, has been accepted as one of the important bedside books in the history of world medicine. In this work, many diseases and drugs are explained in a systematic way. In addition to his own medical practices and drug recipes, Ibn-i Sina gave information about the effectiveness of these

drugs by including some drugs of physicians such as Galen and Hippocrates, and sometimes compared his own drugs with the drugs of the mentioned physicians in terms of content and effectiveness. It is possible to classify the drugs in the Canon medicinae of Avicenna as simple and compound drugs. In his work, Cevziyya, inspired by the perspective of the Prophet (pbuh) on this subject, mentioned that people who eat simple foods such as desert people could be treated with simple drugs, and other societies with mixed diets can be treated with compound drugs. He explained this situation with the following statements: "The sequencing in treatment is primarily structured with foods. If a solution cannot be found, it is considered appropriate to treat with simple drugs, and if this is not possible, with mixed drugs. The reason for this is that compound diseases are due to the fact that foods are compound, that is, mixed. In other words, those who have a mixed diet should use compound drugs in their diseases. While Greek and Greek doctors of the period preferred compound drugs in treatment, simple drugs were sufficient in the treatment of Arab societies with a simple diet. (El-Cevziyya, 2016). The Muslim people living in the time of the Prophet (pbuh) benefited greatly from the medical advice of the Prophet (pbuh). Even in the time of the Prophet (pbuh), despite the fact that Mukavkıs, the Egyptian general governor of the Greek Empire, sent various gifts, including a doctor, to the Messenger of Allah (pbuh). It is included in some Sirah sources where the Prophet (pbuh) said that they did not need a doctor by accepting other gifts and citing their eating and drinking habits. (Ali b. Ibrahim al-Halebi, as-Siyre al-Halebiyya 3).

In " Canon medicinae" book of Avicenna's, it is possible to reach many recipes including treatment methods with honey, as well as giving information about how to use many plants and substances in the treatment of diseases. He defined high quality honey as "a food that is pure, homogeneous, fragrant, pungent, sweet, reddish in color and viscous". According to him, honey is included in simple and compound medicines and should also be used in some special cases. The special usage area of honey is as follows: It was determined by Ibn Sina that sometimes the substances used in the drugs created with the facilities of the period had side effects or that the prepared drug had difficulties in reaching the target tissue or organ, and honey was used to overcome these difficulties. In El-Cevziyya Al-Tibb al-nabawi, about the way of using honey with this aspect of Ibn-i Sina, "Honey increases the strength of pastes and other drugs in which it is put. On the other hand, it reduces/removes the effects of bad drugs (with side effects)" (Öztürk, 2019). This is from Canon medicinae "*Solanum nigrum*" (grassberry) 20 g has a lethal effect when eaten. When eaten less, it becomes insane. If this drug is eaten, its side effects other than insanity can only be eliminated by drinking water with honey. For this reason, the medicine made with nightshade plant is only used as a pomade." It is possible to give an example of it (Canon medicinae, volume 2). In addition, Ibn-i Sina stated that honey has ripening, solvent and melting properties. Some simple medicine prescriptions and usage purposes in "Canon medicinae" are given below.

- In the treatment of rectal wounds by mixing *Ruta graveolens* and honey.
- Calming the nerves by mixing *Ruta graveolens* and honey.
- If honey and vinegar mixture is drunk with salt, it will cause asthma.
- The mixture of onion juice and honey causes inflammation in the throat.
- If the onion is applied together with honey, stomach pain and indigestion can be caused.
- If the egg yolk is fried and beaten with honey, it can cause spots and black spots on the skin.
- Root of *Polypodium vulgare* helps to remove phlegm and bile from the body if it is drunk over water with

honey.

- Equal amounts of flaxseed, mustard, honey are sometimes mixed with beeswax and made into a paste, and this paste treats nail breakage, splitting and curling.
- Almond oil and honey, especially bitter almond oil, iris root and beeswax prevent wrinkles on the skin, treat skin disorders and allergic skin disorders.
- If copper flower (*Arachnis flos aeris*) is mixed with honey, it can cause tonsillitis, throat infections.
- If it is eaten with grass, honey, figs or dates, it causes cough, softens the chest, improves the voice and nourishes the lungs.
- The mixture of Menengiç (*Pistachio terebinthus*) gum, honey and olive oil is effective against ear infections.
- Black cumin - honey mixture helps to clean the skin pores.
- Honey and olive oil are used to treat pus-filled wounds (Canon medicinae Volume 2).

In this work of Avicenna, it is possible to see that besides the use of honey alone, it is also included in different forms of medicines. These; honey water, honey vinegar, honey and rose water drink, such as a mixture of honey and climbing herbs. In addition, honey wine is used for therapeutic purposes in the work. Apart from this, it is seen that beeswax, which is a bee product of Ibn Sina, is also used in the treatment of some diseases.

There are some general classifications regarding the use of honey for therapeutic purposes in Canon medicinae. These;

1. Honey has an attractive effect. With the effect of vascular opening and pulling, it absorbs the moisture in the deep parts of the organs and prevents the tissues from rotting and deteriorating.

2. Thanks to the massage with honey, lice and nits die. It is used in the cleaning of skin rashes and temre. It is used by mixing with salt in bruises caused by trauma and impact.

3. It has high nutritional value. It increases appetite. Honey water (honey syrup/honey water) strengthens the stomach.

4. Sugarcane honey softens the tummy. Honey cooked with water has a diuretic effect. When an indigestible food is taken, honey ensures that that food is removed from the body.

5. When honey is mixed with rose oil, heated and drunk hot, it acts as an antidote to the harmful effects of opium and insect bites. Licking honey is a very effective remedy against poisonous fungi and rabies. Boiled honey acts against the poison, it is very useful if you vomit after eating.

6. Gargle with honey heals tonsillitis.

7. It is used in the treatment of pus, contaminated and other wounds. Cooked or even boiled and mixed honey helps fresh cuts stick. In addition, when honey is used with dill, it is good for scabies.

8. If honey mixed with Mılh-ı endurani (it can be a salt of a special place) is dropped into the ear, it relieves the inflammation of the ear. Increases hearing and vision power. It gives shine to the eyes (Avicenna).

Studies on Honey in Scientific Area

There are many studies in the scientific literature that talk about the composition and health benefits of honey.

Honey consists of 70-80% sugars. Glucose and fructose constitute 80-90% of the sugars in honey (Genç & Dodoloğlu, 2011). Apart from this, there are sugars such as disaccharides and oligosaccharides in honey (Bogdanov et al., 2008). The contributions of honey on human health have been proven by many studies, and these properties are only valid for natural honey. However, it has been determined that honey is a food rich in antioxidants and contains substances that are very important for health such as flavonoids, phenolic acids, organic acids, amino acids, proteins and carotenoid derivatives (Gheldof et al., 2002; Schramm et al., 2003; Lachman et al., 2010). According to Efem (1988), the chemical composition and quality of honey depends on the vegetation of the area where the bees are, the type and amount of nectar of the plants that are the source of honey, the geographical location of the region, altitude, temperature changes, the purity of the bee races used, etc. reported to be related to many features. In addition, the components in the honey are adversely affected by some applications made by the beekeeper, storage time, storage conditions and packaging (Escuredo et al., 2014; Şahinler et al., 2009; Şahin et al., 2020). As a result of such negative practices, it has been reported in scientific studies that the beneficial existing components in honey lose their activity or turn into another form and lose their beneficial properties (Da Silva et al., 2016; Moreira et al., 2007; Şahin et al., 2020). Unheated raw honey can be delivered to the consumer by maintaining appropriate harvesting and storage conditions. Thus, the beneficial properties of honey can be preserved.

Honey is considered a good source of antioxidants due to the various phenolic substances it contains (Aljadi & Kamaruddin, 2004; Küçük et al., 2007). Antioxidants are substances that protect cells from the damage of free radicals (molecules formed during the metabolic activities of living things and attacking cells and destroying their structures) (Anonymous, 2017; Özcan, 2018). Free radicals; aging, kidney failure, cancer, infertility, the formation of sepsis, which is a systemic and fatal response of the organism to the infection state, cardiovascular diseases, degenerative neurological diseases covering the process from loss of function of neurons, which are the basic unit of the nervous system, to death, muscle and liver diseases is responsible for the occurrence of many diseases (Gutteridge, 1993; Ercan & Fidancı, 2012, Tabakoğlu & Durgut, 2013). There are differences in antioxidant activity between honeys. The reason for this difference is primarily the type of plant that is the nectar source of honey or the type of epidemic (Da Silva et al., 2013), the environment where the nectar or the plant from which the epidemic is taken, the climatic conditions (Buratti et al., 2007; Silici et al., 2010), the structure of the soil, It is caused by the change of factors such as humidity, temperature (Buratti et al., 2007), geographical origin (Buratti et al., 2007; Al et al., 2009) of the environment (Gül & Pehlivan, 2018). Based on significant experimental evidence, the literature lists some areas where honey is beneficial for health. These areas include: In the treatment of obesity and obesity-related disorders, Controlling blood sugar, Lowering blood fats, Preserving the function of the endothelium covering the inner wall of the vessel, Protecting the nervous system from damage, Providing benefits in reducing/preventing inflammation (Ranneh et al., 2021), Immunosuppressive immunosuppressive (Bogdanov, 2008), Antioxidative, Germicidal antimicrobial (Dżugan et al., 2020), Hypotensive, lowering high blood pressure, Antiproliferative, Liver protective hepatoprotective (Ranneh et al., 2021), Providing a positive effect against cardiovascular diseases (Samarghandian, 2011; Alvarez-Suarez, 2013; Onbaşlı et al., 2019), Preventing the development of Helicobacter pylori bacteria, which is the causative agent of gastric ulcer, of honey (Ajibola et al., 2012), Healing stomach wounds (Onbaşlı et al., 2019), Treating cold and cough (Shadkam et al., 2010), Protection and prevention against large intestine-toxicity, stomach ulcers, ulcerative colitis (Talebi et al., 2020).

Intestinal Health and Honey

Honey is easily absorbed from the digestive system and in addition, it has a digestive effect. In case of diarrhea, it eliminates the heavy water loss that the body loses and ensures that the lost water is regained. It shows a mild intestinal softening (laxative) effect when consumed with hot water (Yeşilada, 2015). Although studies on the positive effects of honey on intestinal health have started to take place in the literature in recent years, there are many issues that need to be clarified on this subject.

One of these issues is the relationship between the gut and the brain (mood state). In recent years, issues such as the formation and course of behavioral disorders can be affected by the digestive system, the functional integrity of the digestive system and the microbe communities in the intestine have become the focus of many researches (Bested et al., 2013). Studies have shown that some beneficial bacteria (beneficial microbes) living in the intestines of the human body have psychological health-improving properties. These are generally *Lactobacillus* spp. and *Bifidobacterium* spp. consists of types (Misra & Mohanty 2019). In one of these studies, it was observed that probiotics, consisting of a combination of *Lactobacillus* R0052 and *Bifidobacterium longum* R0175 bacterial species, alleviated psychological distress and pessimism (Messaouidi et al., 2011). Some studies have shown that honey has beneficial effects on intestinal health. Accordingly, it has been revealed that fresh honey contains probiotics, which are microorganisms that prevent the development of disease-causing microorganisms (*Lactobacillus* spp and *Bifidobacterium* spp) and that these probiotics can pass through the honey stomach of the bee and survive in honey for 2-3 months after the honey harvest. In addition, foods that protect intestinal health and improve mental health by feeding the beneficial bacteria mentioned above are called “prebiotics”. Like well-known commercial prebiotics, honey has this property (Gaifullina et al., 2016). In other words, honey is among the prebiotic foods that cannot be digested by digestive enzymes in humans and increases the activity of some beneficial bacteria in the intestine (Özyurt & Semih, 2014). Due to this feature of honey, psychological depression, anxiety, etc. It is one of the natural alternatives to drugs used in the treatment of diseases. Misra and Mohanty (2019) found that honey promotes the development of intestinal microbes (*Lactobacillus* spp and *Bifidobacterium* spp), which contribute to improving mental health in animals and humans. For the first time, the prebiotic properties of some of the four monofloral honeys (*Lactobacillus acidophilus* LA-05 and *Bifidobacterium animalis* subsp. *lactis* BB-12) obtained from the Northeastern semi-arid region of Brazil, which increase the probiotic bacteria, were investigated. As a result, it has been determined that monofloral honey called JJ contributes to the increase and metabolism of probiotic bacteria by showing a prebiotic effect compared to the other three monofloral honeys in the research (Melo et al., 2020).

Another issue that has emerged in recent years is the treatment of Ulcerative colitis (UC), a type of important bowel disease called IBD (Baumgart & Carding, 2007; Tommasini et al., 2010; Bassaganya Riera et al., 2012). on the use of honey. IBD is an inflammatory gastrointestinal tract disease that is thought to occur as a result of excessive immune response in people with intestinal immune factors and genetic susceptibility, the causative agent of which cannot be determined exactly. However, heavy treatment is recommended to prevent progression of the disease and to keep inflammation under control (Stange et al., 2008; Dignass, 2010; Cosnes et al., 2011; Yoldaş, 2017). Although the treatment of CD (Crohn's) and UC, which are different types of IBD, takes a long time, sometimes it may be necessary to continue treatment for life. (URL 2). The mentioned intestinal diseases are important because of the increase in the incidence of IBD in developing countries, especially developed countries, and in Türkiye (Shivananda

et al., 1996; Lakatosi, 2006; Tozun et al., 2009; Yoldaş, 2017). IBD includes physical and psychological factors that affect patients' quality of life. These are the chronicity of the disease, the need for medical and surgical treatment, the side effects of the treatment, the stress caused by the risk of developing cancer due to the disease, the frequent recurrence of disease symptoms, the symptoms outside the digestive system due to the disease, and the change in body image after the diagnosis of the disease. These symptoms significantly affect the patients' activities of daily living (Habibi et al., 2017; Öztürk & Yıldırım 2020). In a study was determined that the level of depression and anxiety in IBD patients is more than twice that of healthy individuals (Graff et al., (2010; Yanartaş et al., 2014). Some studies suggest that honey has a positive effect on reducing UC-induced inflammation and oxidative stress markers (Nooh & Nour-Eldien, 2016). Bilsen et al. (2002) investigated the effectiveness of honey on UC disease in comparison with disulfuram and prednisolone drug active ingredients after making experimental animals (UC) patients (tri benzene sulfonic acid model). As a result, no significant effect was observed with application of honey for 3 days, but after 7 days application, it was determined that it had an effect close to the drug called prednisolone in terms of some parameters investigated, and also prevented injuries in the mucosa more significantly than the drug called prednisolone. Nooh & Nour-Eldien (2016) determined that natural honey has a beneficial role in the treatment of (DSS-induced) UC in rats and that this honey causes the regeneration of epithelial cells forming the intestinal surface. In addition, some studies have reported that honey is effective in the treatment of UC (Rezaei et al., 2019; Talebi et al., 2020). Although studies on this subject are quite limited in the literature, the information obtained suggests that long-term use of honey may be beneficial in the treatment of UC (ulcerative colitis). n addition, there are studies in the literature that the use of probiotic supplements, prebiotics and symbiotics (probiotic + prebiotic) can be beneficial in the treatment of intestinal diseases such as UC, IBS, SIBO. The fact that honey has probiotic and prebiotic properties for a while after its harvest can be evaluated in this respect. However, based on the fact that probiotics cannot provide the same success in every patient (Ustaoğlu, 2020), the same success may not occur in honey as expected in every patient. In general, it can be said that honey has benefits in Prophetic medicine and current scientific literature.

Conclusion

Honey is a valuable food that has taken place in the nutritional culture of people from past to present. In addition, it can be used in many areas, especially in the medical applications applied by the public and physicians, apart from the kitchen. In the process of the emergence of food culture and folk medicine, religious beliefs have an effect as well as the knowledge we have gained as a result of the experiences we have transferred from the past to the present. In this context, it is possible to see the perspective of the religion of Islam on honey, which is a food, and the importance it gives in terms of healing, both in the Qur'an and in the Prophet's medicine, which he himself practiced and recommended.

In general, in the treatment of diseases, the Prophet (pbuh) consumed honey by eating it directly or as a honey syrup and recommended its use in this way. Honey, which is so praised in the religion of Islam, is also attracted the attention of Ibn Sina, an important Muslim physician. Avicenna mentioned the general and special use of honey in his famous work Al-Qanun fi al-Tibb. General uses of honey in the work: solvent, removal of serious side effects of some drugs, facilitating the delivery of some drugs to the diseased organ, increasing the effectiveness of drugs that cannot reach the dose sufficient to cure the patient. In this work, the use of honey for therapeutic purposes was for

skin, ear, eye, stomach and intestinal diseases. In today's medical literature, data supporting Islamic medicine related to honey have been reached. These are the data showing that honey can be a solution to many diseases such as cancer, metabolic syndrome, cholesterol, diabetes, and obesity, which are important diseases of our age, due to its antioxidant, antimicrobial, and antitumor properties. Similarly, due to the intestinal-brain relationship, it is suggested in the medical community that honey consumption may be functional in terms of protecting and improving body health, as well as protecting mental health as a probiotic (in fresh honey) and prebiotic food. As a result, in the literature review conducted within the scope of this study, it was determined that the information in Islamic and scientific sources and the medical practices from the past to the present overlap with each other, and accordingly, honey is a healing food item.

It should be ensured that the properties of such an important foodstuff that will positively affect health should be produced in a clean, residue-free and additive-free manner under appropriate production conditions, and delivered to the consumer by applying appropriate storage conditions without applying the heating process. Thus, it can be ensured that the society can benefit from honey not only as a food but also for health protection purposes. As in all branches of science, in the field of Gastronomy, health protection is increasingly coming to the fore, and investigating the possibilities of using "honey" in food and beverage production without applying the heating process will contribute to public health. In order to benefit from the health-promoting properties of honey in foods and beverages, its use in some products may be as follows:

- Honey can be added before the cooked products are served.
- It can be used instead of sugar in ice creams, some salads and sauces without heat treatment.
- Honey can be used instead of sugar in making cream, whipped cream, cake ganache and chocolate.
- Honey yoghurt can be consumed as honey fruit yoghurt.
- Honey can be used in place of sugar in cold sherbets and drinks (cold coffee, iced tea, detox drinks, smothie, lemonade, orange juice, honey sherbet –honey, water- andsirkencubin -honey, vinegar, water-).
- It can be added as a sweetener in fruit bars and fruit salads.
- It can be used in any area where the heating process is not applied.
- Honey vinegar and some salad dressings can be used.
- It can be added instead of sugar after heat treatment in dessert making.
- Honey can be used instead of sugar for sweet-sour balance in red meat and chicken without heating.

The taste and aroma characteristics of honey types can be different from each other. In this regard, sensory analysis studies can be carried out by designing new products with honey added. In addition, gastronomes should be informed about choosing quality honey before producing products with honey. In some universities abroad that provide education in the field of Gastronomy, beekeeping can be given within the scope of Farm to Table. In this context, gastronomes who receive training can produce the product themselves and have the knowledge to reach quality products. It is very important to bring beekeeping knowledge to gastronomes, especially within the scope of sustainable gastronomy activities. Because bees are the most important pollinators of many plant products we consume. Especially in Türkiye, the Beekeepers' Central Union and its affiliated provincial associations can help in supplying quality products by bringing together the right producers and gastronomes.

In order to determine the types of honey to be used in the treatment of diseases in the field of medicine, scientific

research can be carried out in order to obtain sufficient data on which honey type, in which dose, and against which diseases. At this point, especially many monofloral (one flower source is dominant) honey has antioxidant and so on. It is possible to start from previous studies in which the properties of these properties were compared in the same study. In addition, new researches can be made by comparison and the possibilities of using high-capacity honey (for example parsley, chestnut honey…) in the treatment of intestinal and other diseases can be tested. However, it is thought that the benefit of honey may vary in the degree of success in patients, as in every drug or natural product, and in this context, cures created with honey in folk medicine may also be beneficial in affecting the success of treatment, and it may be beneficial to evaluate the diets applied in diseases, which is also a Prophetic medicine principle, within the scope of this subject.

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