



**TYPES OF THE 3rd PROPHET'S HERBAL: HONEY BEES
(SALWA)**

**Muhammad Amiruddin¹, Agisha Salwa Salsabila², Diva Aulia Putri Wibawati³,
Nadiya Ramadanty Mulpiawan⁴, Yulia Anita Sari⁵**

Pharmacy Study Program, Faculty of Medicine and Health Sciences, Maulana Malik Ibrahim
State Islamic University Malang

*email: *agis.17032002@gmail.com*

ABSTRACT

Health is a hope for every human being. In Islam, maintaining health (*hifdzun nafs*) is one of the fundamental parts of the main maintenance principles of the Shari'a (*maqâsidusy syarî'ah*). Islam commands His people to always maintain their health and seek treatment when they are attacked by illness. Honey and vinegar is an example of *Thibbun Nabawi* at the time of Rasulullah SAW. which has many benefits, especially for health and medicine. The purpose of this research is to find out more about the existence of bee honey (Salwa) and vinegar in the Al-Qur'an and Hadith, its contents and benefits, and how to process them for health. The research method used is in the form *literature review* by conducting a survey of journal literature that is relevant to the topic. The results in this study indicate that honey and vinegar have various therapeutic properties. Honey can be used as an antimicrobial, wound healer, antifungal, antidiarrheal, antioxidant and reduces the risk of cardiovascular disease. While vinegar is generally used for antibacterial, antioxidant, antidiabetic, antitumor, antihypertensive and many more benefits.

Key words: *Bee honey, vinegar, health, medicine, thibbun Nabawi*

INTRODUCTION

At the time of the Prophet Muhammad, there was a da'wah called *Thibbun Nabawi*. *Thibbun Nabawi* is a method and medical teachings that have been exemplified by Rasulullah SAW. then passed on to his friends. There are many things that include medical rules in *Thibbun Nabawi*,

including black cumin, rose water, honey, fruit vinegar, zam-zam water, dates and other types of healing foods and drinks (Ihsan, 2016).

One of the healthy drinks that are recognized as beneficial for human survival is honey. Honey has properties that have been known since ancient times. The ancient Egyptians used honey to preserve corpses because it is known that honey can kill bacteria. Meanwhile, the Greeks and Romans used honey to treat injured soldiers, this is because honey can provide strength to the muscles and can remove waste from the body (Kudriah et al, 2021).

The liquid made from sap and has a sour taste is called vinegar. At the time of Rasulullah SAW. vinegar is used instead of a side dish. The Messenger of Allah made vinegar as a sauce ingredient which is used as a companion to eating bread. At that time, vinegar sauce was known as a healthy food. History says that from ancient times, people have used vinegar as a food preservative, traditional medicine, antibiotic, even as a household cleaner. From the past until now, vinegar has been known to have antimicrobial properties that can kill harmful microorganisms (Irmayana, 2017).

DISCUSSION

Honey in the Al-Quran

Honey is a natural substance in the form of a viscous liquid with a sweet taste and is produced by honey bees by taking flower essences from plants (floral nectar) or other parts of plants (extra floral nectar) or insect excretion. Honey has been known since ancient times as a medicinal ingredient which has many benefits for maintaining health, and can even be used to cure various diseases (Kudriah et al, 2021).

Honey in the Qur'an is specifically discussed in QS. An-Nahl: 68-69 as follows

وَأَوْحَىٰ رَبُّكَ إِلَى النَّخْلِ أَنِ اتَّخِذِي مِنَ الْجِبَالِ بُيُوتًا وَمِنَ الشَّجَرِ وَمِمَّا يَعْرِشُونَ ﴿٦٨﴾ ثُمَّ كُلِي مِن
كُلِّ الثَّمَرَاتِ فَاسْلُكِي سُبُلَ رَبِّكِ ذُلُلًا يَخْرُجُ مِنْ بَطُونِهَا شَرَابٌ مُّخْتَلِفٌ أَلْوَانُهُ فِيهِ شِفَاءٌ
لِّلنَّاسِ إِنَّ فِي ذَٰلِكَ لَآيَةً لِّقَوْمٍ يَتَفَكَّرُونَ ﴿٦٩﴾

Meaning: "And your Lord revealed to the bees, 'make nests on hills, in wooden trees, and in places made by humans.' Then eat from every (kind of) fruit and walk the path Your Lord who has made it easy (for you). From the belly of the bee comes a drink (honey) of various colours, in which there is a medicine that heals humans. Indeed, in that there is a sign (of God's greatness) for those who think.

In this verse the word honey is not mentioned directly but instead uses the term "drink". From this it can be said that Allah SWT wants to make people study more deeply about the drink or liquid referred to in this verse. This has been proven in the development of the times, now many people have researched and found various benefits and properties in this honey. Research also says that there are other products produced by bees besides honey such as royal jelly, propolis and beeswax. In the verse it is also said that honey has various colours, this means that honey has various types according to the type of nectar or flower essence consumed by the bee (Kudriah et al, 2021)

In the verse it is also said that honey is produced from the stomach of bees. Research says that the process of forming honey begins with worker bees leaving the hive and looking for food sources by sucking flower essences. The flower essence in the bee's stomach is then fermented by converting the sugar content from sucrose to glucose and fructose with the help of the invertase enzyme in the bee's body. When the worker bees return to their hives, the flower essence that has gone through the fermentation process is then distributed to the house bees to be fermented again by the house bees swallowing and secreting nectar repeatedly. The second fermentation process by house bees has the aim of reducing the water content and also detoxifying the toxins or microbes in the nectar. The next step is that the nectar will be stored in the nest cells that have been made by the bees. At the time of storage of honey in the nest there will be a process of extraction, formation of monosaccharides, and enrichment with aromatic mixtures. On days 3-7 after storage, the bees will cover the honeycomb with beeswax which also indicates that the honey is ripe and ready for harvesting (Kudriah et al, 2021).

Content of Honey Bees Salwa)

No.	Contents of Honey Bees (Salwa)
1.	Carbohydrate
2.	Sugar <ol style="list-style-type: none">FructoseGlucoseSucrose
3.	Fat
4.	Proteins and Amino Acids
5.	Water
6.	Vitamins <ol style="list-style-type: none">Thiamin (Vit B1)Riboflavin (Vit B2)Niacin (Vit B3)Pantothenic Acid (Vit B5)Pyridoxine (Vit B6)Folate (Vit B9)Ascorbic Acid (Vit C)
7.	Minerals <ol style="list-style-type: none">CalciumChlorineCopperIronMagnesiumPhosphorousPotassiumSodiumZincSelenium
8.	Phenolic Compounds

9.	HMF (Hydroxymethyl Furfuraldehyde)
10.	Organic Acids

(Nguyen *et al.*, 2019; Tafere, 2021; Eteraf-Oskouei and Najafi, 2013)

Benefits of Bee Honey (Salwa) for Health

1. Antimicrobial

Various species of bacteria are inhibited by honey. Alcoholic honey extract exhibits inhibitory effects on a wide range of bacterial species, including gram positive and gram negative, aerobic, and anaerobic (Tafere, 2021). The osmolarity, acidity of honey mediated by gluconic acid, and the presence of inhibine hydrogen peroxide are responsible for the antibacterial properties of honey. The presence or growth of most contaminating microorganisms is reduced by these three parameters, whether they act separately or together. 84% of honey solids is a combination of fructose and glucose, two monosaccharides. Very few water molecules are available to bacteria due to the strong interactions between sugar molecules and water molecules. As a result of the process of osmosis, bacteria lose water and become dehydrated, which allows them to be killed. When honey and nectar are diluted, enzymes called inhibitors are formed and accumulate hydrogen peroxide (H₂O₂). For many years, hydrogen peroxide has been recognized as a powerful antibacterial. Some penicillins, such as the notation, consist mostly of peroxide, which has antibacterial properties. The content of flavonoids in honey has a tendency to reduce the activity of microbial enzymes that interfere with metabolic functions (Nadhilla, 2014). Honey evaporates moisture from the air, which causes dehydration of microorganisms. The pH of honey, which ranges from 3.2 to 4.5, is quite low and can prevent bacterial growth. In addition, the high sugar content of honey prevents microbiological growth (Eteraf-Oskouei and Najafi, 2013). With the exception of yeast and some osmophilic bacteria, almost all microorganisms can be stunted by the low moisture content of honey (Khan *et al.*, 2018).

2. Wound Healing

Honey contains organic substances such as polyphenols and glycosides which have antiviral and antibacterial properties and can reduce infection, one of the obstacles to wound healing. Honey contains a variety of vitamins and minerals, including magnesium, potassium, sodium, chlorine, sulfur, iron and phosphate, as well as amino acids, carbohydrates and protein. To provide nutrition in wound healing, honey also contains vitamins such as vitamin E, vitamin C, and vitamins B1, B2, and B6. In addition, honey has the ability to stop the growth of bacteria so that it can speed up the healing process (Mz, 2017). The inflammatory enzymes cyclooxygenase-1 and cyclooxygenase-2 are inhibited by honey. In addition, it reduces plasma levels of potent inflammatory compounds such as prostaglandins including PGE2 (prostaglandin E2), PGF2a (prostaglandin F2a), and thromboxane B2 (Khan *et al.*, 2018).

3. Antifungal

According to reports, honey contains the chemicals flavonoids and polyphenols which have antifungal properties. Flavonoids form complex bonds with cell membrane proteins and damage these bonds resulting in inhibition of fungal growth because the cell membrane becomes lysed and flavonoids enter the cell nucleus. As antifungals, polyphenols can cause damage to the fungal cell walls because polyphenols precipitate proteins in the cell walls. Increased cell permeability caused by cell membrane damage can result in fungal cell damage (Patabang, Suartha and Sudipa, 2022).

4. Cure Diarrhea

Honey is a prebiotic and anti-bacterial which can relieve diarrhea. Honey can also reduce pathogens, shorten the duration of diarrhea, and treat constipation and diarrhea problems in children (Andayani, 2020). Organic substances found in

honey, inhibine from glycosides, polyphenols, and flavonoids have antibacterial properties. By poisoning protoplasm, breaking and penetrating cell walls, precipitating microbial cell proteins, and interfering with the metabolic processes of microorganisms (such as *Escherichia coli*, one of the causes of diarrhea), this chemical compound functions as an antibacterial diarrhea drug. (Nurmaningsih and Rokhaidah, 2019). Since fructose and glucose are monosaccharides, they give honey its sweet taste. Fructose, glucose, and 4-5% fructo oligosaccharides, which also function as prebiotics, are the main constituents of honey. Prebiotics are defined as non-digestible food components which have a positive effect on the health of the host by promoting the growth and activity of various bacteria in the gut. Prebiotics can be said to be nutrition for probiotics, in which these probiotics provide many health benefits if they enter the body because they can balance the microflora of the digestive tract. Probiotics stimulate nearby macrophages to deliver antigen to T cells, which then release cytokines to stimulate B lymphocytes, which in turn produce IgA immunoglobulin. This will stop the growth of pathogenic bacteria in the intestines (Meisuri *et al.*, 2020).

5. Antioxidant

Natural honey is rich in flavonoids, phenolic acids, ascorbic acid, tocopherols, catalase, superoxide dismutase, reduced glutathione, Maillard reaction products and peptides. Flavonoids include apigenin, pinocembrin, kaempferol, quercetin, galangin, chrysin and hesperetin. In addition, phenolic acids such as ellagic, caffeic, p-coumaric and ferulic acids. The majority of these compounds work together to provide a synergistic antioxidant effect (Eteraf-Oskouei and Najafi, 2013). According to related studies, honey contains caffeic acid phenyl esters which inhibit the proliferation of cancer cells in the sub-G1 phase and trigger cell death by activating caspase-3 through the CAPE protein. (Khan *et al.*, 2018).

6. Reducing the Risk of Cardiovascular Disease

Honey contains flavonoids as natural antioxidants which can increase the bioavailability of nitric oxide (NO) by capturing superoxide in the body, lowering

blood pressure and reducing oxidative stress. Honey antioxidants have the ability to lower blood pressure resulting in coronary artery vasodilation which can lead to hypotension (Musyayyadah, Darni and Fathimah, 2019).

Processing of Bee Honey for Health

Rasulullah SAW emphasized since the 15th century that all diseases have their own medicine and can only be cured by the permission of Allah SWT except for aging and death. Medicines for all kinds of diseases have also been provided abundantly by Allah SWT, the Most Healer. Likewise the theory and practice of therapy outlined by Rasulullah SAW. can be emulated by mankind, because in the world of medicine Rasulullah SAW. remain as the main role model (al-Jauziyah, 2002).

Various types of plants and natural materials have existed and are often mentioned in the holy book of the Qur'an. Including one of them is honey obtained from the presence of insects, namely bees. Bee honey or salwa is generally known for being sweet, but on the other hand it also contains nutritious substances to treat a disease. Honey in the holy book Al-Quran is described by Allah SWT as a great quality. Because it is not surprising that a sick person treated with honey will be given healing by Allah SWT (Salim, 2012).

Since ancient times humans have used bee honey or salwa as a therapy. This is evidenced by the circulation of a well-known myth in the community, where a beekeeper can live longer than a person who is not a honey cultivator. This statement is in accordance with research by historians who found that Pythagoras, an ancient Greek philosopher, could live for more than 90 years due to his staple food containing only honey and bread (Fattah, 2011).

Salwa is very useful for various circles of society. But among them there are still many people who do not feel or only feel a small part of the benefits of honey due to lack of knowledge about the properties and how to process honey properly. Here are some ways to process bee honey (salwa) for health, from traditional/conventional to modern ways.

1. Consumed Directly Ala Rasulullah SAW

One of the proofs of the efficacy of salwa for the treatment of various diseases is based on the hadith of Rasulullah SAW. Imam al-Bukhari's history reads:

حَدَّثَنِي الْحُسَيْنُ حَدَّثَنَا أَحْمَدُ بْنُ مَنِيعٍ حَدَّثَنَا مَرْوَانُ بْنُ شُجَاعٍ حَدَّثَنَا سَالِمُ الْأَفْطُسُ عَنْ سَعِيدِ بْنِ جُبَيْرٍ عَنْ ابْنِ عَبَّاسٍ رَضِيَ اللَّهُ عَنْهُمَا قَالَ الشِّقَاءُ فِي ثَلَاثَةِ شَرَبَةٍ عَسَلٍ وَشَرْطَلَةٍ مَحْجَمٍ وَكَيْتَةٍ نَارٍ وَأَنْهَى أُمَّتِي عَنِ الْكَيْ رَفَعَ الْحَدِيثَ وَرَوَاهُ الْقَعِيُّ عَنْ لَيْثٍ عَنْ مُجَاهِدٍ عَنْ ابْنِ عَبَّاسٍ عَنِ النَّبِيِّ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ فِي الْعَسَلِ وَالْحُجْمِ

Meaning:

..... "There are three ways of treatment, namely drinking honey, cupping and kay (sticking a hot iron to the injured area), while I forbid my people to treat it with kay..... (HR Al -Bukhari Number 5248).

Consuming salwa in the style of the Prophet Muhammad SAW is by consuming it directly orally or putting it in the mouth until it melts or dissolves and is drunk every morning. From the results of a study by Dr. Brilianto, who is the creator of the book 'Healthy ala Rasul', it was stated that salwa contains high levels of fructose so that it is properly digested in the stomach, so salwa is better dissolved with saliva. In addition, the benefits of consuming salwa in the morning or on an empty stomach can actually be a gastroprotector, namely protecting the stomach from various microorganisms or substances. toxic effects due to the use of chemical drugs (Haqiqi, 2015).

Various modern medical studies state that a child who has then been given a spoonful of salwa it can actually help speed up his sleep (Thalbah, 2008). For many years ancient medical traditions also prescribed honey to be consumed two tablespoons as a sperm booster and to strengthen the uterus. Likewise, this has also been widely used by Asian women who had difficulty getting pregnant in their time (Muhammad, 2012).

2. Functional Drinks

Beside being consumed directly, honey can be made into functional drinks or infusions. According to Jaya's research (2008) on a functional drink of honey as an antioxidant heated with ginger rhizome, it proves that the synergistic combination of honey and ginger rhizome can increase the antioxidant activity of honey. Other studies have also reported that a synergistic combination of honey and Thai ginger can increase the effect of capturing free radicals (Hastuti *et al.*, 2012).

However, keep in mind that honey or salwa will be damaged if mixed with hot water with a temperature of more than 100°C. Therefore, Rasulullah SAW. in his time drinking honey mixed with cold water. In the book *Zadul Ma'ad*, Imam Ibn Qayyim Al-Gauziyah explains that "Rasulullah SAW drank honey mixed with cold water, because that way there is a very amazing secret in maintaining health that will not be known unless people who are smart and have virtue (experts) medical". It is also mentioned in the book *Zadul Ma'ad* about the benefits of drinking and consuming honey, namely that it can thin the phlegm, cleanse and coat the stomach, encourage stools to come out, maintain the ideal temperature in the body, and open blockages. And that's the benefit of honey on the spleen, kidney, and bladder organs and honey is very beneficial for the stomach.”

3. Applied Topically

Besides being able to be consumed directly orally, honey was also developed for topical use. Along with the development of the times, now honey is known as one of the natural ingredients contained in a cosmetic product (Kalangi, 2013). This development was based on ancient Greek medicine which used honey topically as a wound treatment. In addition to ancient Greek medicine, various countries such as Malaysia, India, Africa and most countries in the world in ancient times have used honey topically to treat various types of skin diseases. (Lomban, Kalangi and Pasiak, 2021).

The use of honey for skin disease therapy is based on the ability of pure honey to stimulate epithelial cell regeneration, prevent penetration of wounds by bacteria, eliminate bad odors in wounds and be able to absorb fluid around the wound thereby speeding up the wound drying process. The results in Kalangi's study (2013) state that honey wrapped on burns will speed up wound healing compared to burns that are not covered with honey (Kalangi, 2013).

The nature of honey, which has a high osmotic pressure, high viscosity and has acidic properties with a low pH, serves to prevent the growth of bacteria in the wound and supports conditions that are not good for bacterial growth. Through this mechanism, honey has been known as an antibacterial. The antibacterial activity of honey is due to the enzymatic results of hydrogen peroxide in honey (Kalangi, 2013).

4. Processed into Pharmaceutical Preparations

Honey contains many compounds that are efficacious for treating diseases. Based on the benefits of the ingredients in honey as a form of herbal or natural medicine, honey has great potential to be developed into a more modern pharmaceutical preparation. Here are some examples of honey preparations that can be developed:

A. Moisturizer/Moisturizer

The results of research conducted by Sinulingga et al (2018) state that honey is proven to be used as a moisturizer because it has the main properties of an antioxidant, humectant or emollient. This is because honey with its hygroscopic nature easily absorbs water from the surrounding air to help maintain skin hydration. This hygroscopic property is owned by honey because honey has high levels of glucose and fructose. Both of these compounds are able to create a hydrogen reaction with water which is ultimately able to have a moisturizing effect on the skin (Nur Endah and Suhardiana, 2020).

B. Hair *Tonic*

Based on Diana's research (2014) it can be seen that hair tonic containing honey can be used to treat hair. This is because pinocembrin which is one of the honey contents with its main antioxidant function for hair. This is because the pinocembrin in hair tonic is able to repair damaged hair cells, stimulate hair growth through the provision of conducive tissue, and can improve blood circulation in the hair so that an adequate *supply* of nutrients makes hair look healthier and stronger (Diana, W, 2014).

C. Oral *Hygiene*

Mariyam and Alfiyanti (2014) in their research on children treated at the PICU of Roemani Hospital Semarang concluded that *oral hygiene* with pure honey was more effective in suppressing the growth of bacteria in children's mouths. These properties are owned by honey because of its ability as an antibacterial and its nature has a high viscosity so it is efficacious in being a protective barrier from bacteria. Several further studies have proven that several pathogens that enter the human body are quite effectively treated by giving honey (Mariyam Dera, 2014).

CONCLUSION

From a scientific perspective, honey is defined as a natural liquid that has a sweet taste and is produced by honey bees from plant flower extracts. Honey is high in glucose, fructose and sucrose, contains lots of vitamins and minerals, protein, amino acids, good fats, phenolic compounds, organic acids and HMF (Hydroxymethyl Furfuraldehyde). Honey can be used as an antimicrobial, wound healer, antifungal, antidiarrheal, antioxidant and reduces the risk of cardiovascular disease. To get the properties of honey apart from being consumed directly or added to food. Currently, there are many product innovations with the main ingredient honey, namely hair tonic, moisturizer, oral hygiene and so on.

REFERENCES

- Andayani, R. P. (2020) 'Madu sebagai Terapi Komplementer Mengatasi Diare pada Anak Balita', *Jurnal Kesehatan Perintis (Perintis's Health Journal)*, 7(1).
- Diana, W, W. M. (2014) 'Penggunaan Ekstrak Buah Alpukat dan Madu Sebagai Bahan Aktif Hair Tonic Untuk Rambut Rontok', *e-Journal*, 03(01), pp. 226–235.
- Eteraf-Oskouei, T. and Najafi, M. (2013) 'Traditional and Modern Uses of Natural Honey in Human Diseases: A Review', *Iranian Journal of Basic Medical Sciences*, 16(6).
- Haqiqi, F. N. (2015) 'Efek Pemberian Madu Hutan terhadap Mukosa Gaster yang Diinduksi Ibuprofen Suspensi', *Fakultas Kedokteran Universitas Lampung*, 4(November), pp. 127–132.
- Hastuti, N. D. *et al.* (2012) 'Pembuatan Minuman Fungsional Dari Madu Dan Ekstrak Rosella (*Hibiscus sabdariffa* Linn.)', *Teknologi Pangan : Media Informasi dan Komunikasi Ilmiah Teknologi Pertanian*, 3(1). doi: 10.35891/tp.v3i1.488.
- Ihsan, M. (2016). Pengobatan Ala Rasulullah Saw Sebagai Pendekatan Antropologis Dalam Dakwah Islamiah di Desa Rensing Kecamatan Sakra Barat. *Palapa : Jurnal Studi Keislaman dan Ilmu Pendidikan*, 4(2), 152–210.
- Irmayana, Teti. (2017). Keutamaan Cuka dalam Hadits Nabi (I'jaz Ilmi dalam Ilmu Kesehatan). *Skripsi thesis*. Riau: Universitas Islam Negeri Sultan Syarif Kasim.
- Kalangi, S. J. R. (2013) 'Khasiat Madu Pada Penyembuhan Luka Kulit', *Jurnal Biomedik (Jbm)*, 4(3), pp. 8–11. doi: 10.35790/jbm.4.3.2012.796.
- Khan, S. U. *et al.* (2018) 'Honey: Single food stuff comprises many drugs', *Saudi Journal of Biological Sciences*, 25(2). doi: <https://doi.org/10.1016/j.sjbs.2017.08.004>.
- Kudriah, K., Zaidi, M., & Nurrohmah, N.(2021). Madu Dalam Al-Qur'an (Studi Penafsiran Qs. An-Nahl : 68-69). *Al Muhafidz: Jurnal Ilmu Al-Qur'an Dan Tafsir*, 1(2), 121-135.
- Lomban, A., Kalangi, S. J. R. and Pasiak, T. F. (2021) 'Manfaat Olesan Madu Pada Penyembuhan Luka Kulit', *Jurnal e-Biomedik*, 8(2), pp. 202–208. doi: 10.35790/ebm.v8i2.31902.
- Mariyam Dera, M. A. (2014) 'Penggunaan Madu Dalam Oral Hygiene Sebagai Inhibitor Koloni Bakteri Pada Anak Yang Dirawat Di Picu', *Jurnal Keperawatan Anak*, 2(Vol 2, No 2 (2014): Jurnal Keperawatan Anak), pp. 78–83.

- Meisuri, N. P. *et al.* (2020) 'Efek Suplementasi Madu terhadap Penurunan Frekuensi Diare Akut pada Anak di RSUD Dr. H. Abdul Moeloek Bandar Lampung', *Majority*, 9(2).
- Musyayyadah, S. A., Darni, J. and Fathimah, F. (2019) 'Pengaruh Larutan Madu terhadap Tekanan Darah Lanjut Usia Hipertensi', *Nutri-Sains: Jurnal Gizi, Pangan dan Aplikasinya*, 3(2).
- Mz, A. (2017) 'Pengaruh Madu terhadap Luka Bakar', *Medula*, 7(5).
- Nadhilla, N. F. (2014) 'The Activity Of Antibacterial Agent Of Honey Against *Staphylococcus aureus*', *Medical Journal of Lampung University*, 3(7).
- Nguyen, H. T. L. *et al.* (2019) 'Honey and Its Role in Relieving Multiple Facets of Atherosclerosis', *Nutrients*, 11(1). doi: <https://doi.org/10.3390/nu11010167>.
- Nur Endah, S. R. and Suhardiana, E. (2020) 'Evaluasi Formulasi Tabir Surya Alami Sediaan Gel Lidah Buaya (*Aloe Vera*) Dan Rumput Laut Merah (*Eucheuma cottonii*)', *Jurnal Insan Farmasi Indonesia*, 3(1), pp. 169–176. doi: 10.36387/jifi.v3i1.455.
- Nurmaningsih, D. and Rokhaidah (2019) 'Madu Sebagai Terapi Komplementer Untuk Anak Dengan Diare Akut', *Jurnal Kesehatan Holistic*, 3(1).
- Patabang, D. L., Suartha, I. N. and Sudipa, P. H. (2022) 'Madu Trigona Mampu Menghambat Pertumbuhan Jamur *Curvularia* sp. yang Diisolasi dari Anjing', *Indonesia Medicus Veterinus*, 11(1).
- Tafere, D. A. (2021) 'Chemical composition and uses of Honey: A Review', *Journal of Food Science and Nutrition Research*, 4(3). doi:10.26502/jfsnr.264211000072.