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TALBINAH AS FOOD AND MEDICINE: A REVIEW

(Talbinah sebagai Makanan dan Ubat: Satu Tinjauan)

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ABSTRACT

Talbinah is a carbohydrate-rich, nutritious food that contains various important macro- and micronutrients. This so-called barley porridge or barley water is a type of Prophetic food and one of the favourite foods of Prophet Muhammad (peace be upon him). In one of the hadiths in the Book of Medicine (Book 76) of Sahih al-Bukhari, Prophet Muhammad (peace be upon him) mentioned that this traditional food is a source of nourishment that helps the people who consume it to calm their hearts and emotions. Although this food has been traditionally consumed since ancient times, there is a dearth of scientific study that has been done on this food. Therefore, this article aimed to investigate the therapeutic effect of talbinah specifically on emotional problems. The study was conducted by focusing mainly on the hadith book Sahih al-Bukhari, in which the hadiths with the word 'talbinah' occurs were reviewed and selected. Then, the scientific data on the selected hadiths were searched in four academic search engines, i.e., Google Scholar, PubMed, Medline and Science Direct were analysed regardless of the year of publication to

Corresponding author: Nurul Hafizah Mohd Nor, Institute of Islam Hadhari, Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor, Malaysia. email: nurulhafizah@ukm.edu.my Received: 11 November 2022 Accepted: 18 March 2023 investigate the therapeutic effectiveness of talbinah in alleviating stress, anxiety, depression and other emotional problems. The results showed that talbinah may provide mental health benefits for people, although there are still a limited number of studies on this nutritious food. More in vitro and in vivo studies are needed, in addition to other types of experimental studies on talbinah.

Keywords: Talbinah; Sahih al-Bukhari; book of medicine; food; medicine

ABSTRAK

Talbinah ialah makanan yang kaya dengan karbohidrat, berkhasiat yang mengandungi pelbagai nutrien makro dan mikro yang penting. Bubur barli atau air barli ini adalah sejenis makanan kenabian dan salah satu makanan kegemaran Nabi Muhammad (selawat dan salam ke atas baginda). Dalam salah satu hadis dalam Kitab Perubatan (Kitab 76) Sahih al-Bukhari, Nabi Muhammad (selawat dan salam ke atas baginda) bersabda bahawa makanan tradisional ini merupakan sumber khasiat untuk membantu orang yang memakannya menenangkan hati dan emosi mereka. Walaupun makanan ini telah diamalkan secara tradisional sejak zaman dahulu, namun terdapat kekurangan kajian saintifik yang telah dilakukan terhadap makanan ini. Oleh itu, artikel ini bertujuan untuk mengkaji secara sistematik kesan terapeutik talbinah khususnya terhadap masalah berkaitan emosi. Kajian dilakukan dengan memfokuskan terutamanya kepada kitab hadith Sahih al-Bukhari, di mana hadith-hadith yang terdapat perkataan 'talbinah' telah disemak dan dipilih. Kemudian, data saintifik berkenaan hadis yang terpilih tersebut telah dicari dalam empat enjin carian akademik, iaitu Google Scholar, PubMed, Medline, dan Science Direct tanpa mengira tahun diterbitkan telah dinilai untuk menganalisis keberkesanan terapeutik talbinah untuk melegakan tekanan, kebimbangan, kemurungan dan sebarang masalah berkaitan emosi. Penemuan menunjukkan bahawa talbinah boleh memberi manfaat kesihatan mental kepada orang ramai, walaupun bilangan kajian mengenai makanan berkhasiat ini masih terhad. Sehubungan itu, penyelidikan in vitro dan in vivo perlu lebih banyak dijalankan sebagai tambahan kepada jenis kajian eksperimen lain mengenai talbinah.

Kata kunci: Talbinah; Sahih al-Bukhari; kitab perubatan; makanan; ubat

INTRODUCTION

Everything we eat can affect how our bodies react. That is why human behaviour has always been intrigued by the connection between eating and moods and emotions, although the connection could be varied depending on an individual's particular emotional states and characteristics (Gibson 2006). According to science, having a meal can have a positive effect on one's emotions and moods, including feelings of calm, positivity, less agitation, and anger (Gibson 2006). In Islam, as far as Prophetic healing is concerned, a total of five (5) hadiths with the word (التَّلْسِنَّة) have been recorded in books of hadiths, particularly Sahih Al-Bukhari, Sahih Muslim and Mishkat al-Masabih. These hadiths essentially explained to us the use of the talbinah to improve feelings and emotions. For example, as narrated by Bukhari and Muslim in Mishkat al-Masabih 4179:

And on the authority of 'Aisha (may Allah be pleased with her) who said: I heard the Messenger of Allah (peace be upon him) said: Talbinah gives rest to an invalid's heart and removes some of his grief.

Additionally, the importance of consuming this nutritious food has also been explained in Sahih Muslim 2216:

Abd al-Malik bin Shuaib bin al-Laith bin Sa'd told us, my father told me, on the authority of my grandfather, Aqil bin Khalid told me, on the authority of Ibn Shihab, on the authority of 'Urwah, on the authority of 'Aisha the wife of Allah's Apostle (peace be upon him) who said: When there was any bereavement in her family the women gathered there for condolence and they departed except the members of the family and some selected persons. She asked to prepare talbinah in a small cauldron and it was cooked and then tharid was prepared and it was poured over talbinah, then she said: Eat it, for I heard Allah's Messenger (peace be upon him) as saying: Talbinah gives comfort to the aggrieved heart and it lessens grief.

Talbinah is a barley-based porridge (Alamri 2022) containing various nutrients with healing properties such as zinc, vitamin B2, nicotinic acid, B6, folic acid, essential amino acids, etc. (Youssef et al. 2013). The word talbinah (التَّابِينَة) originates

from the Arabic word *'laban'* which means yoghurt milk, indicating that the consistency of talbinah is the same as that of yoghurt milk (Afzaal et al. 2021). This traditional food has been long consumed in North Africa, the Middle East, as well as Southeast Asia, usually for its medicinal benefits.

Talbinah is made by mixing one or two tablespoons of barley flour, which must be made entirely of whole grains with 1.5 to 2 cups of water. The mixture is then simmered for 10 to 15 minutes. Optionally, milk or yoghurt and honey can be added for the taste (Marwat et al. 2012; Saquib Hussain et al. 2020). It can be consumed either hot or cold, as well as can be added with dried fruits for more nutrition (Lahouar et al. 2021). Nowadays, talbinah is an ancient functional food that can be used both directly as a beverage or indirectly in fortified foods such as bakery or pastry products. Research work by Jabeen et al. (2022) has developed an instant talbinah premix, optimise the extrusion conditions and assess the product's functional and quality properties.

In a study done by Elham Aljaaly in 2022, it has been demonstrated that approximately 46.9% of 1351 individuals in the Kingdom of Saudi Arabia who had consumed prophetic medicine and herbal/plants chose talbinah in their diet, making this functional food the highest consumption compared to other herbal/plants and prophetic medicines. The number increased to 72.6% during the COVID-19 pandemic, indicating that the food did improve in health and nutritional status.

Although this soothing broth has been mentioned in several hadiths as one of the Prophetic healings (Sahih al-Bukhari 5417; 5689; 5690) and has long time consumed traditionally, however, this nutritious food has not been widely defined and explored by the scientific communities as one of the alternatives to cure illness. Therefore, this article will provide insight into the association between talbinah and emotions from the scientific pieces of evidence.

METHODOLOGY

This study is an interdisciplinary study that combines knowledge of the hadiths with knowledge of modern science. First, the hadiths in which the word 'talbinah' occurred were reviewed and selected from the hadith book, majorly focusing on Sahih Al-Bukhari. Then, the scientific data on the selected hadiths were searched in four academic search engines, namely Google Scholar, PubMed, Medline and Science Direct. The data was collected irrespective of the year of publication. Due to the lack of studies on talbinah, only the keywords '*Talbina*' and '*Talbinah*' were used in the search for articles. Only research articles that primarily dealt with

talbinah and its effects on emotions were included. The research articles included were in English or Bahasa Melayu. Animal and human studies were also included.

TALBINAH IN THE HADITH OF SAHIH AL-BUKHARI

There are three (3) hadiths referring to talbinah recorded in Sahih al-Bukhari as one of the food sources recommended during the Prophetic Era as an alternative treatment for curing diseases, especially related to emotions, moods and mental health. As mentioned in Sahih Al-Bukhari 5690 in Book of Medicine (Book 76):

حَدَّثَنَا فَرُوَةُ بْنُ أَبِي الْمَغْرَاءِ، حَدَّثَنَا عَلِيُّ بْنُ مُسْهِرٍ، عَنْ هِشَامٍ، عَنْ أَبِيهِ. عَنْ عَائِشَةَ، أَنَّهَا كَانَتْ تَأْمُرُ بِالتَّلْبِينَةِ وَتَقُولُ هُوَ الْبَغِيضُ النَّافِخُ.

Farwah ibn Abi Al -Mugharaa told us, Ali ibn Murshir told us, on the authority of Hisham, on the authority of his father, on the authority of 'Aisha that she used to recommend al-Talbinah and used to say, "It is disliked (by the patient) although it is beneficial.

In Sahih al-Bukhari 5689:

Hibban bin Musa told us, Abdullah told us, Yunus bin Yazid told us, on the authority of Aqil, on the authority of Ibn Shihab, on the authority of 'Urwah, on the authority of 'Aisha (may Allah be pleased with her) that she used to recommend al-Talbinah for the sick and for such a person as grieved over a dead person. She used to say, 'I heard Allah's Messenger (peace be upon him) saying, al-Talbinah gives rest to the heart of the patient and makes it active and relieves some of his sorrow and grief.'

Another hadith on talbinah was also written in the Book of Food (Book 70) in Sahih al-Bukhari 5417:

حَدَّثَنَا يَخْيَى بْنُ بُكَيْرٍ، حَدَّثَنَا اللَّيْتُ، عَنْ عُقَيْلٍ، عَنِ ابْنِ شِهَابٍ، عَنْ عُرْوَةَ، عَنْ عَائِشَةَ، زَوْجِ النَّبِيِّ صلى الله عليه وسلم أَنَّهَا كَانَتْ إِذَا مَاتَ الْمَيِّتُ مِنْ أَهْلِهَا فَاجْتَمَعَ لِذَلِكَ النِّسَاءُ، ثُمَّ تفُرَقُنَ، إِلاَّ أَهْلَهَا وَخَاصَّتَهَا، أَمَرَتْ بِبُرْمَةٍ مِنْ تلْبِينَةٍ فَطُبِخَتْ، ثُمَّ صُنِعَ ثَرِيدٌ فَصُبَّتِ التَّلْبِينَةُ عَلَيْهَا ثُمَّ قالَتْ كُلْنَ مِنْهَا فَإِيَّ سَعِعْتُ رَسُولَ اللَّهِ صلى الله عليه وسلم يَقُولُ «التَّلْبِينَةُ مَجَمَةٌ لِفُوَّادِ الْمَرِيضِ، تَذْهَبُ بِعُضِ الخُزْنِ». Yahya bin Bukair told us, al-Layth told us, on the authority of Aqil, on the authority of Ibn Shihab, on the authority of Urwah, on the authority of 'Aisha, the wife of the Prophet (peace be upon him) that whenever one of her relatives died, the women assembled and then dispersed (returned to their houses) except her relatives and close friends. She would order that a pot of talbinah be cooked. Then tharid (a dish prepared from meat and bread) would be prepared and the talbinah would be poured on it. 'Aisha would say (to the women), "Eat of it, for I heard Allah's Messenger (peace be upon him) saying: the talbinah soothes the heart of the patient and relieves him from some of his sadness.'

Based on these hadiths, it could be asserted that there are two types of situations of the patient as mentioned by the Prophet Muhammad, namely (i) physical patients such as diabetes and high blood pressure, and (ii) psychological patients such as anxiety, sadness, and panic attacks. As such, there is a need to address the patient both exterior environment (physically) and internal health (psychologically) while dealing with a condition.

Talbinah is a form of barley porridge according to Arab tradition. It is usually mixed with fresh milk and honey as a sweetener. According to al-Muwaffaq al-Baghdadi, the goodness of talbinah is closely related to barley stew, especially if it is bran, i.e., the skin mixed with barley during the machining process because it quickly refreshes and heals, as well as provides appropriate nutrition. When consumed while it is still hot, the effect is stronger, more effective, and more practical to overcome a hot mood (not good) (Ibn Hajar 1993).

Talbinah is better than hassa' (a kind of soup) because the basic ingredients are machined or processed, hence the nutritions in barley are well-blended. It is a food that is rich in dietary fibre and has a strong effect. Clinically, physicians usually prefer cooked talbinah because it is softer and does not make it difficult for the patient to eat it. However, the consumption of talbinah differs based on ethnic groups and cultures. Boiled water of talbinah is more suitable for patients in physical pain while the porridge is more suitable for people who are sad and in despair (Ibn Hajar 1993).

TALBINAH AS FOOD AND MEDICINE

As a source of essential nutrients, talbinah has the potential to be a functional diet for the worldwide population in terms of preventing various illnesses, including diabetes, high blood pressure, and high cholesterol (Saquib Hussain et al. 2020). According to Elhassaneen et al. (2015), talbinah has several uses, including but not limited to the alleviation of stress, elimination of toxins, and enhancement of immunity. Decreased rates of mental and metabolic problems have also been documented (Erejuwa et al. 2012; Münstedt et al. 2015). The various nutrients in talbinah, which may make it useful in the fight against illnesses could be attributed to its three ingredients: (i) barley, (ii) milk and (iii) honey.

Barley as the major ingredient has shown promise as a multipurpose crop with dietary and therapeutic applications. This plant, with its scientific name *Hordeum vulgare* L. is derived from the Poaceae family. In Arabic, barley is known as *'shaeer'*. For thousands of years, the Arabian Peninsula has relied on barley as one of the primary food sources. In fact, during the prophetic time, it had become a prime example of prophetic food and medicine. The plant is also mentioned in the Quran (Yusuf 12: 43). Not only the grains, but all parts, i.e., fruit, seed, root, and leaves of the barley plant have therapeutic value. The nutritional density of barley varies depending on their various cultivar. Barley is rich in a wide variety of pharmacologically bioactive substances, including those found in non-starch polysaccharides, polyphenolic compounds, flavonoids, lignins, vitamins, folic acid, minerals, quinones, and proanthocyanidins (Idehen et al. 2017; Suriano et al. 2018; Ge et al. 2021; Alamri 2022). In addition to lowering the risk of cancer, barley's antioxidant contents can help to lower the risk of many other chronic diseases (Majchrzak et al. 2004; Hathout & Soher 2010).

In addition to barley, dairy products like milk are also a staple in the human diet. Approximately six billion people worldwide rely on milk as a regular part of their diet (Visioli et al. 2014). Milk has been mentioned in the Quran in a few verses, including in an-Nahl (16: 66) and Muhammad (47:15). A variety of bioactive substances including calcium, amino acids, proteins, water-soluble vitamins, essential fatty acids, and lipids found in milk are all widely recognized as having major biochemical and physiological roles (Khan et al. 2019). Milk and dairy products are suggested to have health benefits for both body and mind, especially their ability to give a good night's rest. This could be due to the reason that milk and other dairy products contain a lot of tryptophan, a precursor to melatonin (Komada et al. 2020). In fact, milk protein is one of the few dietary protein sources with a high tryptophan content. Hence, it could be suggested that milk plays role in the nervous system that produces various chemicals that will ultimately affect the mood and psychological expression in humans (Khalifa et al. 2017; Afzaal et al. 2021).

Another important ingredient added to talbinah is honey. Similar to barley and milk, honey has also been mentioned in a passage on remedies in the Quran, particularly al-Nahl (16: 66). Honey is usually taken for its sweet flavour. It is a natural substance produced by honeybees in the wild. About 95% of honey is made up of carbohydrates, namely glucose and fructose. Oligosaccharides take up

approximately 5-10% of the total carbohydrates (Bogdanov et al. 2008). This supersaturated sugar solution also contains significant active compounds including amino acids, vitamins, minerals, polyphones, aroma compounds, antioxidants as well as trace elements (Bogdanov et al. 2008; Purbafrani et al. 2014; Ali & Hendawy 2018; Ehigiator et al. 2021) in various quantities. However, only a small amount of protein (~0.5%) is present in honey, namely free amino acids and enzymes (Bogdanov et al. 2008). Previous research has shown the use of honey for health in a variety of treatments for different health issues, including mental health and psychiatric disorders (Munstedt et al. 2015). On the whole, the unique combinations of each main component of talbinah make this traditional food a functional food with good sources of various vitamins, tryptophans, antioxidants, glucans and many others.

CONTEMPORARY SCIENTIFIC DISCOVERIES OF TALBINAH

The finding from four academic search engines using the keyword 'Talbinah' or 'Talbinah' regardless of the year published showed that no research was found from Medline; two research studies were published in PubMed, and one research study was published in Science Direct. Whereas, in the Google Scholar search engine, there were 237 articles were found using the keyword 'Talbinah', and 292 articles were found using the keyword 'Talbinah'. However, after a critical review of the articles, only five research articles on talbinah and its relation to emotions/ depression/anxiety/sadness were selected. In those studies, one experimental work was conducted in the United State of America, one in Malaysia, one in Egypt, and two in Saudi Arabia. The summary of the included studies was simplified in Table 1 below.

No.	Year	Methodology	Main findings	Reference
1	2022	Utilizing a chronic unpredictable stress model of depression on rats	At 21 days, serotonin levels in the urine significantly declined while dopamine and noradrenaline levels increased	Alamri 2022
2	2019	A single-blind randomized crossover study of Syrian refugees consuming barley flour as part of their breakfast for 28 days	The consumption of talbinah did not significantly enhance stress, depression levels or emotional well-being	Alhassani 2019

TABLE 1 Methodological characteristics and findings of included studies from PubMed, Science Direct, and Google Scholar academic search engines

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3	2017	A randomized clinical trial through the consumption of one serving of talbinah daily on depressive symptoms in a group of 42 female medical students	The depression score dropped in the intervention group relative to the control group, although the change was not statistically significant	Khalifa 2017
4	2016	Utilizing talbinah and pycnogenol as monotherapy or in combination with desvenlafaxine (DV) in socially isolated male mice for 4 weeks prior to a depression model induction experiment	Talbinah, pycnogenol, and DV alone were able to counteract the increases in immobility time and water-finding test. The observed effects of DV were amplified when talbinah or pycnogenol was combined with DV	Abdelaziz 2016
5	2013	A 3-week crossover designed, randomized clinical trial among 30 depressed institutionalized elderly subjects in Seremban to determine mood, depression, stress, and anxiety at weeks 0, 3, 4, and 7	There was a statistically significant reduction in mood disturbances, stress, and depression scores for all parameters among the intervention group	Badrasawi et al. 2013

Talbinah Gives Rest to the Heart

Modern scientific findings have bolstered the usage of talbinah for therapeutic and medicinal purposes, adding to the hadith and cultural context in which it is traditionally used. Previous research indicated that talbinah may alleviate both depression and anxiety (Badrasawi et al. 2013; Clayton-LeVasseur 2022). The ability to regulate one's emotions could be attributed to the high ratio of tryptophan in talbinah. Tryptophan is a precursor to serotonin production, a hormone that has a role in anxiety and mood modulation (Fernstrom 2013; Lindseth et al. 2015). Tryptophan also plays a significant role in the production of monoamines (Badrasawi et al. 2013), as well as reduces the effects of the inhibitory neurotransmitter gamma-aminobutyric acid (Zeng et al. 2014; Komada et al. 2020). Moreover, those who partake in talbinah reported feeling more upbeat afterwards. It could be suggested that the effect was attributed to the reduction in the level of serotonin and an increase in the level of noradrenaline and dopamine. Additionally, the effect of talbinah may be a result of the role of this functional food to modulate monoaminergic systems and maybe alleviate oxidative stress (Alamri 2022). Therefore, talbinah plays role in enhancing people's moods and emotions and is beneficial to their mental health.

Other Health Benefits of Talbinah

Seven illnesses, including grief, high cholesterol, heart disease, cancer treatment, ageing, diabetes, and hypertension, are treated with talbinah (Saquib Hussain et al. 2020; Razman et al. 2020; Omar et al. 2021). The primary ingredient in the production of talbinah, barley, has been found to contain the highest amount of β -glucan (up to 20 g per 100 g dry weight) of any cereal (el Khoury et al. 2012). Whereas β -glucan is the major fibre present in barley, it has been shown that talbinah consumption lowers plasma cholesterol, the glycemic index, and the risk of colon cancer. The study done by el Khoury et al. (2012) discussed the role of beta-glucans in the prevention and treatment of symptoms associated with metabolic syndrome, as well as their underlying mechanisms of action and potential food applications. In addition, barley is thought to be healthy and advantageous for gastrointestinal issues and the removal of toxins from the body (Merouane et al. 2022).

Moreover, talbinah was found to contain high concentrations of all nine minerals studied by Youssef et al. (2013), particularly zinc, which recorded a value that was higher than the daily recommended value. Talbinah also had the highest concentrations of the vitamins B2, nicotinic acid, B6 and folic acid. The study also showed that there were good balanced essential amino acid compositions needed for human nutrition (Youssef et al. 2013). Rather, the study showed that tryptophan levels increased after the production of talbinah and that there was a connection between tryptophan and the biosynthesis of serotonin, which regulates our moods or helps to lessen some of our sorrow as has been explained above. According to Abd Rabo et al. (2018), the use of talbinah demonstrated a significant effect, which reduced the disruption of thyroid, gonadal, and adrenal functions, reversed the exacerbated effect of hypothyroidism, and improved protection against oxidative stress and apoptosis. A study done by Bawazir (2010) proved that talbinah had positive effects on male reproductive function and was found to be potentially safe for sedation because it improves neurotransmitter levels after daily oral administration.

CONCLUSION

It was recorded in Sahih al-Bukhari that talbinah is a good source of food that has many health benefits to the human body, especially in mental health. The effectiveness of this prophetic healing is in parallel with the hadith in Sahih al-Bukhari, as the Prophet Muhammad (peace be upon him) mentioned talbinah as one of the best food medicines for curing the sorrow of the heart. Despite scientifically proven data, studies on talbinah are still insufficient. It is hoped that the present study will serve as a groundwork for future research on talbinah, especially related to emotions and mental health. This research also offers a new sight into the functional food industry and will pave the way for the promotion of the prophetic medicine application.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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