



## DETERMINING INDIVIDUALS' KNOWLEDGE, ATTITUDES AND EXPERIENCES CONCERNING MENENGIC COFFEE AND BITTIM SOAP

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### ABSTRACT

This study was conducted to determine the knowledge, attitudes, and experiences of individuals concerning menengic coffee and bittim soap. In the study, the data were collected from 152 individuals living in the cities of Siirt and Mardin, between 01 June and 15 September 2021, actively via internet-social media (E-Mail, WhatsApp, Instagram, Facebook, etc.). When the consumption frequency of those who used bittim soap or any other bittim product was evaluated, it was observed that 16.4% of them used it every day. While 67.8% of the participants stated that they drank menengic coffee, 46.7% reported that they knew the health benefits of menengic coffee. While 83.6% of the participants reported that bittim soap was effective in skincare, 81.8% stated that bittim soap was effective in hair growth. All of the participants stated that menengic coffee was effective in dropping blood pressure. In addition, 67% of the participants stated that this coffee was effective in recovering stomach problems, 50.5% as a blood glucose regulator, 46.6% for skincare, 45.6% for reducing respiratory distress, 45.6% as a diuretic, and 42.7% as an antiseptic. When the experiences of the individuals were evaluated, it was determined that bittim soap was effective in skin care and hair growth. Menengic coffee was effective as a blood glucose regulator, a diuretic, and an antiseptic in dropping blood pressure, recovering stomach problems, and reducing respiratory distress.

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### Introduction

*Pistacia terebinthus* is a member of the Anacardiaceae family. The plant is commonly known as terebinth [1]. Terebinth plants are perennial shrubs or small trees with aromatic dark green leaves, native to the Mediterranean region as far as Morocco, Portugal, Greece, Turkey, and Syria [2, 3]. The fruits, branches, and leaves of the terebinth plant are used for various purposes among the people and are locally known with names such as menengic, melengic, hackberry, and bittim [2]. In late summer, this plant produces red, green, and purple edible fruits with a high-fat content [4-6].

Plant parts such as fruit, fruit oil, and resin are used as food and traditional medicine [7]. Different parts of the terebinth plant have been utilized as an antiseptic for bronchitis and as a diuretic and have ethnopharmacological uses in wounds, burns, and stomach in Anatolia [4-6, 8, 9].

In addition to its medicinal and aromatic properties, its fruits have been utilized as an appetizer and as an ingredient of a special village bread in Southern Turkey for several thousand years [8, 9]. It is also used in making coffee and soap. Products such as "menengic coffee" and "bittim soap", which have become increasingly popular in recent years, have brought great commercial importance to the species [10-12]. Today, the use of menengic coffee has been increasing in many countries, primarily in Turkey, because of its numerous benefits such as antiseptic properties, good for the digestive system, and good for anemia [13-15].

Laboratory and mouse experiments have revealed various benefits of this plant but there has been no study yet investigating its effects on human beings. Therefore this study aims to determine the knowledge, attitudes, and experiences of individuals concerning this plant, which is mostly consumed locally as menengic coffee and bittim soap.

### Materials and Methods

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This cross-sectional study was conducted to determine the knowledge, attitudes, and experiences of individuals about menengic coffee and bittim soap.

The sample of the study consisted of individuals between the ages of 18-69 who were actively using the internet-social media (E-Mail, WhatsApp, Instagram, Facebook, etc.), were living in the cities of Siirt and Mardin, and voluntarily agreed to participate in the study.

The data were gathered from 152 individuals living in the cities of Siirt and Mardin, between 01 June and 15 September 2021, actively via internet-social media (E-Mail, WhatsApp, Instagram, Facebook, etc.).

The researchers collected the data by using a survey form prepared based on the relevant literature.

#### Statistical Analysis

Means, median, frequencies, and percentage were used as descriptive statistics to show the result.

### Results and Discussion

The mean age of the participants was  $24.62 \pm 8.16$  years and 79.6% of them were female. It was determined that while 42.8% of the participants had a bachelor's degree or higher education, 40.8% were high school graduates. 72.4% of the individuals were unemployed. The majority of them stated that their income level was middle (68.4%). Most of them stated that their health status was good (61.8%) (**Table 1**).

**Table 1.** Sociodemographic characteristics of the participants

|   | n   | %    |
|---|-----|------|
| <b>Gender</b>                           |     |      |
| Female                                  | 121 | 79.6 |
| Male                                    | 31  | 20.4 |
| <b>Educational Background</b>           |     |      |
| Illiterate                              | 3   | 2.0  |
| Primary school                          | 8   | 5.3  |
| Secondary school                        | 14  | 9.2  |
| High school                             | 62  | 40.8 |
| Undergraduate and higher                | 65  | 42.8 |
| <b>Employment</b>                       |     |      |
| Yes                                     | 42  | 27.6 |
| No                                      | 110 | 72.4 |
| <b>Occupation</b>                       |     |      |
| Civil servant                           | 15  | 9.9  |
| Self-employed                           | 12  | 7.9  |
| Worker                                  | 15  | 9.9  |
| Unemployed                              | 110 | 72.4 |
| <b>Income level</b>                     |     |      |
| Low                                     | 30  | 19.7 |
| Middle                                  | 104 | 68.4 |
| High                                    | 18  | 11.8 |
| <b>The longest residence place</b>      |     |      |
| Village/town                            | 13  | 8.6  |
| Province                                | 36  | 23.7 |
| District                                | 103 | 67.8 |
| <b>How do you describe your health?</b> |     |      |
| Bad                                     | 3   | 2.0  |
| Moderate                                | 55  | 36.2 |
| Good                                    | 94  | 61.8 |

All of the participants stated that they utilized natural or herbal approaches. 59.2% of the individuals reported that they knew the health benefits of bittim soap or other bittim products. 61.8% stated that they obtained this information from their family,

spouse, relatives, and friends. When the consumption frequency of those using bittim soap was evaluated, it was observed that 16.4% used it every day (**Table 2**).

**Table 2.** Properties about the use of Bittim soap

|  | n  | %    |
|--|----|------|
| <b>Do you use Bittim soap?</b>   |    |      |
| Yes  | 55 | 36.2 |
| No   | 97 | 63.8 |
| <b>Do you have knowledge about the health benefits of Bittim soap?</b> |    |      |
| Yes  | 90 | 59.2 |
| No   | 62 | 40.8 |
| <b>If so, where did you obtain this information?*</b>                  |    |      |
| Radio- Television  | 15 | 9.9  |
| Newspaper – Magazine   | 9  | 5.9  |
| Healthcare Professionals   | 6  | 3.9  |
| Family, Spouse, Relative, Friend                                       | 94 | 61.8 |
| Other  | 8  | 5.3  |
| <b>Consumption frequency of those using Bittim soap (n=55)</b>         |    |      |
| Every day  | 9  | 16.4 |
| Once a week  | 11 | 20.0 |
| Every 15 days  | 3  | 5.5  |
| Rarely   | 32 | 58.2 |

\* More than one option was marked.

Also, 67.8% of the participants stated that they drank menengic coffee and 46.7% reported that they knew the health benefits of menengic coffee. 50.7% of them stated that they obtained this information from their family, spouse, relatives, and friends. When the consumption frequency of those using menengic coffee was analyzed; it was observed that while 69.9% of them consumed it rarely, 18.4% consumed it once a week (**Table 3**).

**Table 3.** Properties about the use of Menengic coffee

|  | n   | %    |
|--|-----|------|
| <b>Do you drink Menengic coffee?</b>                                       |     |      |
| Yes  | 103 | 67.8 |
| No   | 49  | 32.2 |
| <b>Do you have knowledge about the health benefits of Menengic coffee?</b> |     |      |
| Yes  | 71  | 46.7 |
| No   | 81  | 53.3 |
| <b>If so, where did you get this information?*</b>                         |     |      |
| Radio- Television  | 14  | 9.2  |
| Newspaper – Magazine   | 5   | 3.3  |
| Healthcare Professionals   | 6   | 3.9  |
| Family, Spouse, Relative, Friend   | 77  | 50.7 |
| Other  | 6   | 3.9  |
| <b>Consumption frequency of those using Menengic coffee (n=103)</b>        |     |      |
| Every day  | 4   | 3.9  |
| Once a week  | 19  | 18.4 |
| Every 15 days  | 8   | 7.8  |
| Rarely   | 72  | 69.9 |

\* More than one option was marked.

Those who used bittim soap were asked to draw on their own experience, and tell us where it benefited them. While 83.6% of the participants stated that bittim soap was effective in skincare, 81.8% stated that bittim soap was effective in hair growth (Table 4). Those who drank menengic coffee were asked to draw on their own experience, and tell [us] where it benefited them. All of the participants expressed that menengic coffee was effective in dropping blood pressure. In addition, 67% stated that it was effective for stomach problems, 50.5% as a blood glucose regulator, 46.6% for skincare, 45.6% for reducing respiratory distress, 45.6% as a diuretic, and 42.7% as an antiseptic (Table 4).

**Table 4.** Usage experiences of those using Menengic coffee or Bittim soap

|                                | Menengic coffee (n=103) |       |               |      | Bittim soap (n=55) |       |               |      |
|--------------------------------|-------------------------|-------|---------------|------|--------------------|-------|---------------|------|
|                                | Effective               |       | Non-effective |      | Effective          |       | Non-effective |      |
|                                | n                       | %     | n             | %    | n                  | %     | n             | %    |
| Skin care                      | 48                      | 46.6  | 55            | 53.4 | 46                 | 83.6  | 9             | 16.4 |
| Hair growth                    | 24                      | 23.3  | 79            | 76.7 | 45                 | 81.8  | 10            | 18.2 |
| Relieving respiratory distress | 47                      | 45.6  | 56            | 54.4 | 13                 | 23.6  | 42            | 76.4 |
| Stomach problems               | 69                      | 67.0  | 34            | 33.0 | 12                 | 21.8  | 43            | 78.2 |
| Dropping blood pressure        | 103                     | 100.0 | -             | -    | 55                 | 100.0 | -             | -    |
| Antiseptic                     | 44                      | 42.7  | 59            | 57.3 | 17                 | 30.9  | 38            | 69.1 |
| Diuretic                       | 47                      | 45.6  | 56            | 54.4 | 12                 | 21.8  | 43            | 78.2 |
| Periodontal diseases           | 28                      | 27.2  | 75            | 72.8 | 8                  | 14.5  | 47            | 85.5 |
| Blood glucose regulator        | 52                      | 50.5  | 51            | 49.5 | 11                 | 20.0  | 44            | 80.0 |

*Pistacia terebinthus* has been used in traditional medicine to treat many diseases such as gastrointestinal, liver, urinary and respiratory tract diseases, and periodontal diseases due to its tonic, aphrodisiac, diuretic, antiseptic, and antihypertensive characteristics [2, 8, 9, 16-18]. Additionally, there are many scientific studies in the literature that reveal the beneficial effects and broad pharmacological activities of these species in antioxidant, antimicrobial, antiviral, anticholinesterase, anti-inflammatory, antidiabetic, antitumor, and gastrointestinal disorders [1, 2, 16, 19, 20].

Upon assessment of the frequency of consumption of those using Bittim soap or any other bittim product, it was determined that 16.4% of them used it every day. The analysis of the consumption frequency of Menengic coffee users indicated that while 69.9% of them consumed it rarely, 18.4% consumed it once a week.

Those who used bittim soap were asked to draw on their own experience, and tell us where it benefited them. While 83.6% of the participants reported that bittim soap was effective in skincare, 81.8% stated that bittim soap was effective in hair growth. Those who drank menengic coffee were asked to draw on their own experience, and tell [us] where it benefited them. All of the participants stated that menengic coffee was effective in dropping blood pressure. Moreover, 67% stated that it was effective for stomach problems, 50.5% as a blood glucose regulator, 46.6% for skincare, 45.6% for reducing respiratory distress, 45.6% as a diuretic, and 42.7% as an antiseptic.

Today, menengic coffee has been increasing in many countries, especially in Turkey, because of its numerous benefits such as antiseptic properties, good for the digestive system, and good for anemia [13]. In a study, it was confirmed that the terebinth plant had strong bioactive and antimicrobial effects, as well as the fatty acids and essential oils in its content [21]. Another study demonstrated that it was effective in lowering cholesterol [22]. In another study conducted on mice, it was reported that it showed an antidiabetic activity by reducing the harmful effects on serum enzyme levels and lipid oxidation due to its anti-oxidative effect [23]. Upon the literature review, we have encountered no study investigating its effects on human beings. There have been laboratory and mouse experiments. The results of the present study support these studies.

Since the data collection process of the present study coincided with the COVID-19 pandemic, internet-social media (E-Mail, WhatsApp, Instagram, Facebook, etc.) was used to reach the sample. The limitation of the study is that we could not evaluate the experiences of those who did not use the Internet and social media. It is recommended to repeat the study in larger sample groups and to conduct experimental studies in this field.

## Conclusion

When individuals' own experiences were asked, 83.6% of them stated that bittim soap was effective in skincare and 81.8% in hair growth. All of the participants stated that menengic coffee was effective in dropping blood pressure. In addition, 67% stated that it was effective for stomach problems, 50.5% as a blood glucose regulator, 46.6% for skincare, 45.6% for reducing respiratory distress, 45.6% as a diuretic, and 42.7% as an antiseptic.

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