

Original Research Article

The usage of traditional remedies in comparison with medical remedies for the common cold in Al-Medina Al-Munawara

Haya Zaki H. AlBalawi*, Lobna M. Saber, Nussaiba Yahya N. Khawaji,
Narjes Mansour A. AlSibaa, Layan Khalid M. AlHarbi, Sara Mohammed S. AlMutairi

Al-Rayan National Colleges, Madinah, Saudi Arabia

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*Correspondence:

Dr. Haya Zaki H. AlBalawi,

E-mail: albalawihaya4@gmail.com

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ABSTRACT

Background: The common cold, a prevalent viral infection of the upper respiratory tract, often prompts individuals to seek alternative treatments, including herbal and traditional remedies. In Saudi Arabia, herbal medicines, including those with traditional origins, are widespread, reflecting high trust and reliance on these natural remedies. This study aimed to investigate the awareness and use of traditional herbal remedies for treating the common cold in Al-Madinah Al-Munawara, Saudi Arabia, and to compare their effectiveness with conventional medical treatments.

Methods: A cross-sectional web-based survey was conducted among 408 individuals aged 18-63 years in Al-Madinah Al-Munawara, Saudi Arabia, from September 2023 to January 2024. A self-administered questionnaire was used to collect data on demographic characteristics, common cold symptoms, and the use of natural products and medications for treating the common cold. The sample size was calculated using OpenEpi version 3, and data were analyzed using SPSS version 27.

Results: The results found that traditional and herbal remedies were widely used for treating 230 (56.4%), preventing 67 (16.4%), and enhancing health 59 (14.5%). Along with honey 208 (51.0%) was the most used natural product, followed by guava tea 78 (19.1%), black seed 72 (17.6%), and black cumin 50 (12.3%). Natural products alone were used by 281 (68.9%), while 202 (49.5%) used both medications and natural products.

Conclusions: The study found a high prevalence of using traditional herbal remedies, particularly honey, compared to conventional medicines for treating common colds in Al-Madinah Al-Munawara, reflecting cultural significance in Saudi Arabia.

Keywords: Common cold, Ginger, Saudi Arabia, Complementary and alternative medicine, Traditional herbal remedies

INTRODUCTION

The common cold is one of the most prevalent minor illnesses worldwide, affecting individuals of all ages and socioeconomic backgrounds. In Saudi Arabia, the population's approach to managing common cold symptoms is a subject of interest.¹ The country's rich cultural heritage has influenced the use of traditional remedies alongside conventional medical treatments.

Al-Madinah Al-Munawara, a city of significant cultural importance in the Kingdom of Saudi Arabia (KSA), serves as the focus of this study due to the use of traditional herbal remedies, which are considered a long-standing therapeutic and cultural significance. Traditional medicine is a system of traditional medicine widely used among the Saudi population. These traditional remedies include herbs such as ginger, honey, and black seed (*Nigella sativa*).²

Existing research suggests that using CAM, including herbal and traditional remedies, is widespread in Saudi Arabia.¹⁻⁴ Studies have reported that up to 88.4% of the Saudi population has used herbal medicines, often based on inherited beliefs and traditional practices.³ Furthermore, the use of CAM, including herbal remedies, has been reported to be highly prevalent among Saudi adolescents, ranging from 1.6% to 58.6%.³ Indicating a strong cultural and traditional inclination toward using herbal and traditional remedies in the Saudi population. Because it is often perceived as safer and more natural than conventional pharmaceuticals.² However, the lack of standardization, quality control, and scientific evidence regarding the safety and efficacy of these herbal remedies remains a significant concern.⁴ In addition, more than 25 plants are used for treating various diseases by local people in KSA⁹ and are commonly used by females.¹⁰ People tend to use traditional medicine for the treatment of critical diseases such as hypertension, type II DM, infertility, or reduction of fractures in osteoporotic patients.⁵⁻⁸

This study aims to explore the awareness and use of traditional and herbal remedies for treating the common cold in Al-Madinah Al-Munawara, Saudi Arabia, and to compare their perceived effectiveness with conventional medical remedies. The study hypothesizes that traditional and herbal remedies are widely used for treating the common cold in the region, and they are perceived as effective in managing symptoms compared to conventional treatments. Culture and preference for natural remedies are also hypothesized to be significant factors influencing the choice of traditional and herbal remedies over conventional therapies. The findings could provide valuable insights into the efficacy and popularity of these remedies among the Saudi population, thereby informing healthcare policies and practices. Additionally, the study could promote evidence-based decision-making and ensure the safe and effective use of herbal and traditional remedies in conjunction with conventional treatments.

METHODS

Study design and settings

A cross-sectional web-based survey was designed using Google forms to collect data over four months, from September 2023 to January 2024. The study participants were randomly selected from the population of Al-Madinah Al-Munawara, Saudi Arabia, including individuals aged between 18 and 63 years. The data collection was conducted through social media platforms. Male and female respondents who expressed willingness to complete the survey were included in the study.

Participant selection

The study included male and female respondents who expressed willingness to complete the survey. The

inclusion criteria were individuals aged between 18-63 years, residing in Al-Madinah Al-Munawara, and exhibiting at least three common cold symptoms: nasal congestion, runny nose, sneezing, cough, sore throat, headache, or fever. The duration between symptom onset and diagnosis confirmation was required within 72 hours. Individuals with chronic respiratory illnesses, such as asthma or chronic obstructive pulmonary disease (COPD), or those undergoing treatment for the common cold were excluded from the study.

Study sample

The sample size for this study was calculated using the OpenEpi version 3 software, assuming a confidence interval of 95%, a standard deviation (SD) of 0.5, a margin of error of 5%, and a total population of 1000. This yielded the required sample size of 278 participants. Accounting for non-response, dropout, and subgroup analyses, our final sample size was planned to be 408 completed questionnaires from participants.

Data collection

Quantitative data were collected using an electronic self-administered questionnaire. The questionnaire consisted of 15 items covering three domains: demographic data, characteristics of common cold symptoms, and the use of natural products and medications for treating the common cold. The socio-demographic section collected data about age, gender, and the presence of chronic respiratory diseases like asthma or COPD. The standard cold characteristics section asked about symptoms, previous diagnosis by a health professional, preferences for treatment, time frame from onset to diagnosis, and use of alternative/complementary medicine. The third section inquired about preventive measures, commonly used natural products, and using medications and natural products alone or in combination. The questionnaire was developed based on previous studies and underwent content validation by a panel of experts, including two assistant professors and one researcher from the clinical pharmacy department.^{5,6} The questionnaire was then translated into Arabic following a forward-and-backward translation procedure. A pilot study was conducted with a small sample (n=50) to assess the reliability of the questionnaire, which yielded a Cronbach's alpha value of 0.78, indicating acceptable internal consistency.

Ethical considerations

The research ethics committee of Al-Rayan colleges reviewed and approved study protocol. All participants provided informed consent, and their confidentiality and privacy were ensured throughout study.

Statistical analysis

Data were extracted into an Excel sheet and then revised. The statistical analysis was done using the computer

program IBM SPSS (version 27.0). Categorical variables were described in numbers and percentages. Additionally, the column chart was used to describe the percentage of each natural product used for treating the common cold among the participants.

RESULTS

Socio-demographic data

Table 1 presents the socio-demographic data of the study participants. Most participants (56.1%, n=229) were in the 18-30 age group, followed by the 31-46 age group (30.1%, n=123). Females constituted a higher proportion of the participants (65.2%, n=266). Regarding chronic respiratory diseases, 337 (82.6%) participants did not have asthma or COPD.

Characteristics of common cold data

Table 2 presents the characteristics of the common cold data collected from the study participants. Most participants (74.0%, n=302) reported common cold symptoms such as nasal congestion, runny nose, cough, sore throat, headache, or fever. A significant proportion of the participants (70.8%, n=289) had been previously diagnosed with a common cold by a healthcare professional, while the remaining (29.2%, n=119) self-diagnosed based on their symptoms.

Regarding treatment preferences, 334 (81.9%) participants preferred trying self-treatment first when experiencing mild cold symptoms that did not affect their daily life. Only 74 (18.1%) participants preferred to visit a clinic immediately. The time frame between symptom onset and diagnosis was within three days for 334 (81.9%) of the participants, while 53 (13.0%) experienced a five-day gap, and 21 (5.1%) waited for more than five days before receiving a diagnosis.

The use of alternative or complementary medicine was prevalent among the participants. A significant portion of 230 participants (56.4%) reported using alternative or complementary therapy to treat the common cold, 67 participants (16.4%) used it to prevent the disease, and 59 participants (14.5%) used it to enhance their overall health. However, 52 participants (12.7%) reported not using alternative or complementary medicine.

Use of natural products and medications for treating the common cold

Table 3 presents the results of using natural products and medications for treating the common cold. Most participants (78.7%, n=321) reported using natural products to prevent getting sick during the common cold season, while the remaining used medication. The most used natural product for treating the common cold was honey (51.0%, n=208). Regarding the use of medications, 261 of the participants (64.0%) did not solely use medications when they had a cold. Additionally, 321 participants (78.7%) did not use over-the-counter medications and antibiotics for the common cold. Regarding treating the common cold, 281 (68.9%) participants used only natural products. Furthermore, 202 participants (49.5%) used medications and natural products together for the common cold.

As shown in Figure 1, honey (51%) is the most commonly used remedy for the common cold, followed by guava tea (19.1%), black seed (17.6%), and black cumin (12.3%).

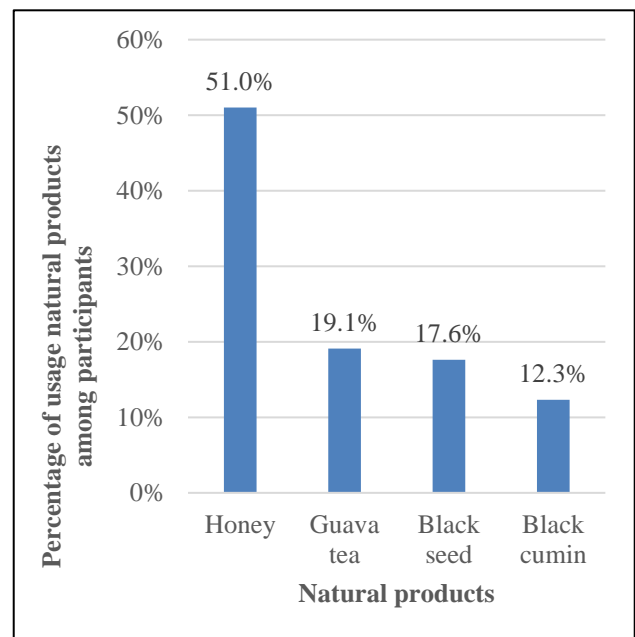


Figure 1: The most commonly used natural product for treating the common cold.

Table 1: Socio-demographic data results.

Variables	Description	N	Percentage (%)
Age (in years)	18-30	229	56.1
	31-46	123	30.1
	47-65	49	12.0
	>65	7	1.7
Gender	Male	142	34.8
	Female	266	65.2
Chronic respiratory diseases: asthma and COPD	Yes	71	17.4
	No	337	82.6

Table 2: Characteristics of common cold data.

Questions	Answer	N	Percentage (%)
Do you suffer from the following symptoms (nasal congestion, runny nose, cough, sore throat, headache, or fever)?	Yes	302	74.0
	No	106	26.0
Have you been previously diagnosed by a health professional as having a common cold?	Yes	289	70.8
	No, I self-diagnosed based on symptoms.	119	29.2
What are your preferences if you have a cold but the symptoms do not affect your daily life?	Go to the clinic immediately	74	18.1
	Try self-treatment first	334	81.9
What is the time frame between the onset of symptoms and diagnosis?	Three days	334	81.9
	Five days	53	13.0
	Five days	21	5.1
	Preventing the disease	67	16.4
	Treating the disease	230	56.4
Have you used alternative/complementary medicine?	Enhancing health	59	14.5
	I have not used it	52	12.7

Table 3: Use of natural products and medications for treating common cold results.

Questions	Answer	N	Percentage (%)
What do you do to prevent getting sick during the common cold season?	Use natural products	321	78.7
	Use medication	82	20.1
What is the most commonly used natural product for treating the common cold?	Honey	208	51.0
	Guava tea	78	19.1
	Black cumin	50	12.3
Do you only use medications when you have a cold?	Black seed	72	17.6
	Yes	147	36.0
Do you use over-the-counter medications and antibiotics when you have the common cold?	No	261	64.0
	Yes	87	21.3
Do you only use natural products (such as guava tea, black seed, honey, or black cumin) when you have a cold?	No	321	78.7
	Yes	281	68.9
Do you use medications and natural products when you have a cold?	No	127	31.1
	Yes	202	49.5
	No	206	50.5

DISCUSSION

The current study aimed to explore the awareness and use of traditional and herbal remedies treating the common cold among the population of Al-Madinah Al-Munawara, Saudi Arabia, and compare their perceived effectiveness with conventional medical remedies. The findings provide valuable insights into the cultural and traditional influences that shape the management of common cold symptoms in this region.

The socio-demographic data of the study participants reveal that the majority were in the younger age group of 18-30 years 229 (56.1%), with a higher proportion of female respondents 266 (65.2%). This aligns with previous studies in Saudi Arabia that have reported a high prevalence of CAM use, including herbal and traditional remedies, among younger individuals and women.^{2,3} As

reported in the literature, the higher representation of female participants may be attributed to their increased likelihood of using herbal and traditional remedies, particularly during pregnancy and postpartum.³

The characteristics of the common cold data in Table 2 revealed that 302 participants (74.0%) experienced the typical symptoms of the common cold, and a healthcare professional had previously diagnosed 289 participants (70.8%).¹¹ This suggests that the study population is well-informed about the clinical presentation of the common cold. Interestingly, when experiencing mild cold symptoms that did not affect their daily life, most participants (81.9%, n=334) preferred self-treatment before seeking medical care.² This preference for self-management may be rooted in the cultural efficacy of traditional remedies and a desire to avoid the perceived side effects of conventional medications.¹²

The results also indicate that a significant proportion of the participants (56.4%, n=230) used alternative or complementary medicine, including herbal remedies, for treating the common cold. Compared to 59 (16.4%) used it for prevention and 52 (14.5%) for enhancing overall health.¹ These findings are consistent with previous studies in Saudi Arabia that have reported a high prevalence of CAM use, particularly the use of herbal medicines, for various health conditions.¹²

The data on using natural products and medications for treating the common cold Table 3 provides further insights into the participants' preferences and practices. Most participants (78.7%, n=321) reported using natural products, such as honey, guava tea, black seed, and black cumin, to prevent getting sick during the common cold season, while only 82 (20.1%) used conventional medications.¹³ This preference for natural remedies aligns with the cultural significance of traditional and herbal medicine in Saudi Arabia and the perception that these remedies are safer and more effective than conventional treatments.⁴

Honey was the most commonly used natural product for treating the common cold (51.0%, n=208). These finding highlights honey's deep-rooted cultural significance as a traditional remedy in the region.¹² Other natural products, such as guava tea, black seed, and black cumin, reflect the influence of traditional herbal remedies in managing the common cold in Al-Madinah Al-Munawara.

Regarding conventional medications, most participants (64.0%, n=261) did not rely solely on medications when they had a cold, and 321 participants (78.7%) avoided using over-the-counter drugs and antibiotics. This preference for natural remedies over conventional treatments may be attributed to the belief that herbal and traditional remedies are safer and more effective and a desire to avoid the perceived side effects of pharmaceutical drugs.¹⁴

Interestingly, 281 participants (68.9%) reported using only natural products, such as guava tea, black seed, honey, and black cumin, when they had a cold. In comparison, 202 participants (49.5%) used a combination of medications and natural products. This highlights the widespread use and acceptance of herbal and traditional remedies among the study population and their potential complementary role alongside conventional treatments. Table 3 reflects honey's deep-rooted culture as a traditional remedy in the region.

The Middle Eastern region includes more than 2600 plant species, of which more than 700 are noted for their use as medicinal herbs.¹⁵ Regarding other regions, the medicinal plants were considered effective in treating the Common Cold and flu, whereas 56% of the participants used medicinal plants or their combination with medications for treatment in Estonia.¹⁶ In Ethiopia, the prevalence of using traditional medicine for common colds was 70.1%,

with Damakase and Tenadam being the most commonly utilized remedies.¹⁷ In Romania and Moldova, medicinal plants like lemon, raspberry, and garlic were frequently used and seen as effective for common colds and influenza.¹⁸ In India, honey as a traditional remedy has also been well-documented in ancient Indian literature, including the Vedas and Ayurvedic texts, where it is recommended for improving various health conditions.¹⁹ Traditional medicine usage is diverse and significantly differs depending on the region.²⁰

Limitations and implications

The study has several limitations that should be considered. First, it employed a cross-sectional design, which limits the ability to establish causal relationships between the variables. Additionally, it relied on self-reported data, which may be subject to potential biases, such as recall bias and social desirability bias.

Furthermore, the study only focused on the participants' perceptions and behaviours, not considering the effectiveness and safety of the herbal and traditional remedies used for the common cold. Future research should consider conducting randomized controlled trials and laboratory studies to assess the efficacy and safety of these traditional remedies compared to conventional treatments.

Despite these limitations, the current study holds significant implications for healthcare practitioners and policymakers in Saudi Arabia. The findings highlight the awareness of the widespread use of herbal and traditional remedies among the population, particularly in managing the common cold. This can help facilitate communication between patients and healthcare professionals, enabling the safe and effective integration of traditional treatments.

Furthermore, the study underscores the importance of developing evidence-based guidelines and regulations for herbal and traditional remedies in Saudi Arabia. This could involve standardizing product quality, safety, and efficacy assessments and providing comprehensive patient education and counselling on the appropriate use of these traditional remedies.

CONCLUSION

The study reveals the widespread use of traditional and herbal remedies, particularly honey, guava tea, black seed, and black cumin, for managing the common cold in Al-Madinah Al-Munawara. This preference is driven by the solid cultural significance in the region and the perceived safety and efficacy of these natural treatments. However, there is a need for further research to evaluate the effectiveness and safety of these remedies through rigorous clinical trials. Healthcare providers should also promote open communication and evidence-based practices to ensure the safe and effective integration of traditional treatments for the common cold. Appropriate

policies and regulations are crucial to standardizing the quality and use of herbal and traditional remedies in Saudi Arabia.

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