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UTILIZATION, ATTITUDES, AND DRIVERS OF COMPLEMENTARY AND ALTERNATIVE MEDICINE AMONG THE SAUDI POPULATION IN MADINAH CITY, SAUDI ARABIA

Abdullah Tahseen Allam¹, Sami Alrahily², Gaber Alrahily², Abdullah Saud Alahamdi¹,
Abdullah Saleh Aljohani², Banan Saud Alrewaithi¹, Wael Nafea Zaid Aljabri², Sami
Muslim Alloqmani¹

¹Madinah Health Cluster, Al-Madinah, Saudi Arabia

²Ministry of Health (MOH), Al-Madinah, Saudi Arabia

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ABSTRACT

Complementary and Alternative Medicine (CAM) use is increasingly prevalent globally and in Saudi Arabia. However, comprehensive data on its utilization patterns, public attitudes, and the primary drivers for its adoption in Madinah City, Saudi Arabia, is limited. To determine the prevalence, types, attitudes, and key determinants of CAM use among adults in Madinah City, Saudi Arabia. A cross-sectional study was conducted among 420 Saudi adults recruited through social media in Madinah City, Saudi Arabia. Data were collected using a structured, self-administered online questionnaire. Data analysis included descriptive statistics, chi-square tests, and multivariate logistic regression to investigate significant predictors of CAM use. Among 420 participants, 65% reported using CAM, mostly occasionally ("when needed," 89.7%). Common modalities included honey, herbs, and black seeds (53.1%) and cupping (20.1%). Primary motivations were avoiding modern medicine side effects (68%) and cultural or religious beliefs (65%). Favorable attitudes toward CAM were reported by 83.1%, with associations to rural residence and CAM use. Most users did not consult healthcare providers (85.7%), experienced no side effects (72.8%), and were willing to recommend CAM (79.9%). Regression analysis identified favorable attitude, age, sex, and educational level as significant predictors of CAM use. CAM use is prevalent in Madinah City, Saudi Arabia, driven by positive attitudes and cultural beliefs. The lack of communication with healthcare providers highlights the need to integrate CAM discussions into conventional care to ensure patient safety and coordinated management.

KEYWORDS: Complementary and Alternative Medicine, CAM, prevalence, attitude, Saudi Arabia.

1. INTRODUCTION

Complementary and Alternative Medicine (CAM) encompasses a broad spectrum of health practices, systems, and products that fall outside the scope of conventional Western medicine [1]. These include herbal therapies, cupping (hijama), acupuncture, spiritual healing, and dietary or nutritional supplements. Globally, CAM has gained recognition both as an adjunct to and an alternative for biomedical treatments, reflecting cultural beliefs, accessibility, and patient preferences [1,2].

In Saudi Arabia, CAM occupies a particularly significant role, rooted in traditional and Islamic healing practices that have been passed down through generations. Spiritual healing, including Qur'anic recitation and supplication, is among the most widely used modalities [3]. Herbal medicines such as black seed, honey, and myrrh are also extensively utilized across the Kingdom [3,4]. Cupping therapy (hijama) remains a commonly practiced modality, though its prevalence varies substantially across studies [3]. Acupuncture, although less common, is practiced in certain communities and among specific patient groups [3].

The National Center for Complementary and Alternative Medicine (NCCAM) in Saudi Arabia regulates key CAM practices such as cupping and acupuncture. Despite this regulatory progress, many CAM practices remain inconsistently supervised, raising concerns regarding safety, herb-drug interactions, and delayed medical care [5].

Several studies across different regions of Saudi Arabia have reported high levels of CAM utilization. In the Western Region of Saudi Arabia, a large survey reported widespread use and awareness of CAM modalities such as herbal medicine (90.7%), massage (91.8%), nutritional supplements (89.8%), and spiritual healing (88.1%) [4]. Among older adults nationwide, more than 60% reported CAM use, with herbal products, acupuncture, honey, and cauterization being common [6]. Similarly, in Al-Madinah, patients with chronic diseases reported high utilization of herbs (55.5%), honey and its derivatives (53.4%), and cupping and acupuncture (6.5%) [7]. Another study among diabetic patients in Riyadh found that nearly 26% used CAM, particularly mind-body therapies and herbal supplements such as black seed and fenugreek [8].

While the perceived benefits of CAM are often recognized, its unregulated use carries serious risks, including harmful interactions with conventional drugs and delays in seeking effective treatment [9,10]. The socio-cultural context is a key determinant of CAM practices; however, the distinct profile of

Madinah City remains underexplored. Addressing this gap, the present study aims to comprehensively assess the prevalence, types, attitudes, and determinants of CAM use among adults in Madinah, Saudi Arabia.

2. METHODS

A cross-sectional study was conducted. The study was set in Madinah City, Saudi Arabia. The target population consisted of Saudi adults aged 18 and above residing in Madinah City. The required sample size was calculated using the Raosoft sample size calculator, which indicated that 385 participants were needed, with a 5% margin of error, a 95% confidence level, and a response distribution of 50%. A mixed-methods sampling approach was employed, using snowball and convenience sampling via social media platforms such as Twitter, WhatsApp, and Instagram, as well as community centers in urban and rural areas of Madinah City, Saudi Arabia, to ensure geographic representation.

A structured, self-administered online questionnaire was developed for data collection. The questionnaire was originally drafted in English, based on instruments from previous similar studies [4-8], and was subsequently translated into Arabic. It underwent a back-translation process to ensure accuracy and consistency between the two languages. The questionnaire consisted of five sections: (1) Socio-demographic data, including age, gender, education level, occupation, income, marital status, city of residence, and history of chronic medical diseases; (2) A section on CAM utilization, covering ever-use, use in the past 12 months, frequency, types of CAM used, and expenditure; (3) An attitudes section using a 5-point Likert scale to assess perceptions of CAM's effectiveness, safety, and cultural importance, along with reasons for use, sources of information, and disclosure to physicians. Participant attitudes were assessed using six statements, with responses coded on a scale from +1 (agree/strongly agree) to -1 (disagree/strongly disagree), and 0 for neutral. A total attitude score ranging from +6 to -6 was calculated for each participant, and a mean score was derived. Participants with positive total scores were classified as having a favorable attitude, while those with zero or negative scores were categorized as having an unfavorable or neutral attitude; (4) A drivers and motivation section; and (5) A safety and experience section.

The questionnaire's validity and reliability were assessed. A panel of experts, including public health specialists, epidemiologists, and a CAM practitioner,

reviewed the instrument for face and content validity. A pilot study was conducted with 30 participants to evaluate the clarity and flow of the questionnaire. The internal consistency of the Likert scale sections was assessed using Cronbach's alpha, which yielded a result of 0.90, indicating excellent reliability.

For the data collection procedure, the final Arabic version of the questionnaire was distributed online using the Google Forms platform. The survey link was disseminated through targeted social media channels and local community networks. The collected data were analyzed using SPSS Statistics version 22. Descriptive statistics, including frequencies and percentages, were used to summarize the characteristics of the study population and overall attitude levels. The chi-square test was utilized to examine differences in favorable attitudes toward CAM across demographic subgroups. Furthermore, a multivariate logistic regression model was constructed to examine factors associated with CAM utilization, generating odds ratios with corresponding 95% confidence intervals. A p-value of ≤ 0.05 was considered statistically significant.

The study received ethical approval from the Institutional Review Board of the Health Directorate in Madinah City, Saudi Arabia. Participant confidentiality was maintained by collecting no

personal identifiers and storing data securely. Informed consent was obtained digitally at the start of the survey, which outlined the study's purpose, risks, and benefits.

3. RESULTS

Table 1 presents the characteristics of the 420 participants included in the study. Just over half of the sample were aged 18–<30 years, followed by those aged 30–<50 years, with a smaller proportion aged 50 years or older. Females constituted a larger share of the participants compared to males. Most respondents had a university-level education or higher. The majority reported a monthly family income between 5,000 and 15,000 SR, with fewer participants in the lower and higher income categories. More than half were married, while the remainder were single or divorced/widowed. Students represented the largest occupational group, followed by employed and non-employed individuals, with a small proportion of retirees. Most participants resided in urban areas, and nearly all reported no history of chronic diseases. The prevalence of CAM use among the participants was 65% (Figure 1). Detailed patterns of CAM use among the 273 users are presented in Table 2, and the reasons for use are summarized in Figure 2.

Table 1: Characteristics Of the Studied Participants.

Characteristics	N = 420
Age in years	
18-<30	212 (50.5)
30-<50	157 (37.4)
≥ 50	51 (12.1)
Sex	
Male	163 (38.8)
Female	257 (61.2)
Educational level	
Secondary and less	101 (24.0)
University and higher	319 (76.0)
Monthly family income (SR)	
<5000	74 (17.6)
5000-15000	267 (63.6)
>15000	79 (18.8)
Marital status	
Single	135 (32.1)
Married	244 (58.1)
Divorced/Widow	41 (9.8)
Occupation	
Student	181 (43.1)
Employed	127 (30.2)
Non-employed	100 (23.8)
Retired	12 (2.9)
Residence	
Urban	317 (75.5)
Rural	103 (24.5)

History of chronic diseases		
No		396 (94.3)
Yes		24 (5.7)

Figure 1. Percent distribution of CAM use among the studied 420 participants in Madinah City, Saudi Arabia

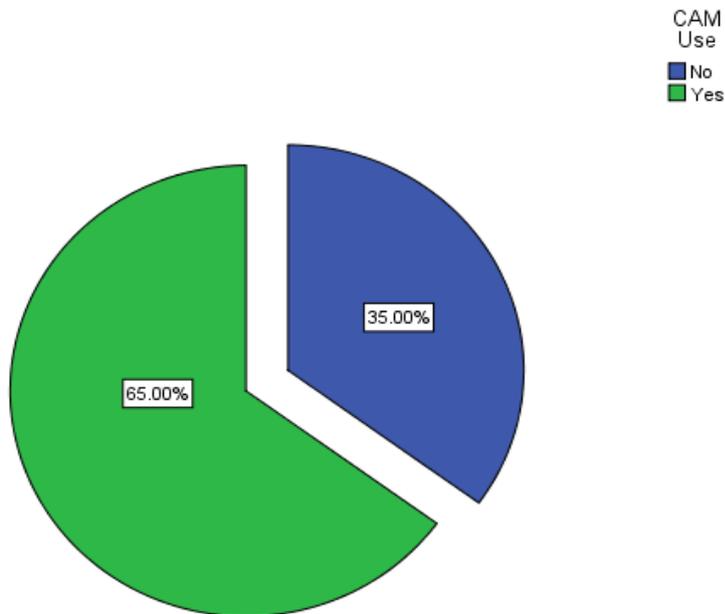


Figure 2. Frequency percent of Self-Reported Reasons for CAM Use among the users (n= 273)

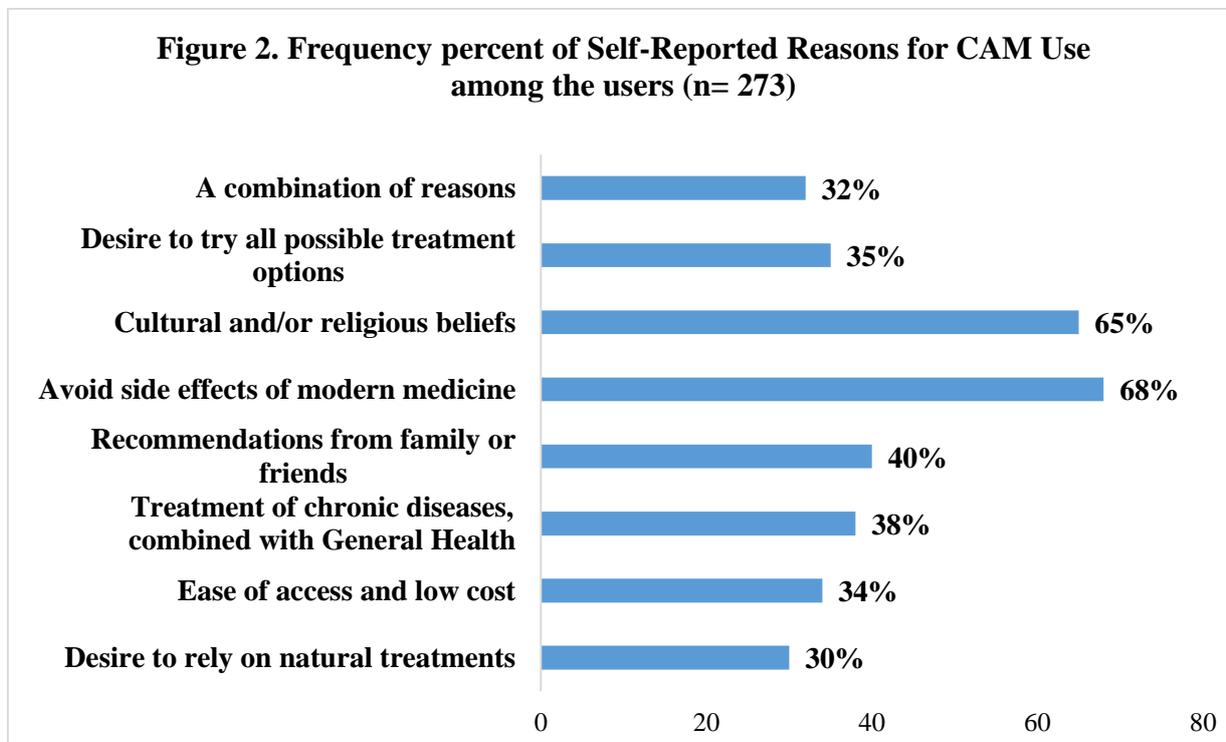


Table 2: Pattern Of Practice of CAM Among Users (N= 273).

Practice Variables	N= 273
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Frequency of use	
Daily	12 (4.4)
Weekly/Monthly	16 (5.7)
When needed	245 (89.7)
The common used CAM	
Honey, herbs, and black seeds	145 (53.1)
Cupping	55 (20.1)
Zamzam water and honey	42 (15.4)
Honey and herbs	16 (5.9)
Ruqyah (spiritual healing)	15 (5.5)
Duration of use	
< one year	165 (60.4)
1-5 years	40 (14.7)
>5 years	68 (24.9)
Money spent on CAM last year	
< 1000 SR	240 (87.9)
≥ 1000 SR	33 (12.1)
Consulted healthcare providers	
No	234 (85.7)
Yes	39 (14.3)
Experience of any side effects from CAM	
No	199 (72.8)
Yes	74 (27.2)
Recommend CAM to others	
No	55 (20.1)
Yes	218 (79.9)

Table 2 summarizes the patterns of CAM practice among users ($n = 273$). The data indicate that CAM use is predominantly intermittent and recent, with the vast majority of users (89.7%) engaging with it only when needed, and 60.4% having done so for less than one year. The most commonly reported CAM modality was a combination of honey, herbs, and black seeds (53.1%). Use was largely self-directed and low-cost, as evidenced by 85.7% of users not consulting a healthcare provider and 87.9% spending less than 1,000 SR annually. While 27.2% reported experiencing side effects, a strong majority (79.9%) would still recommend CAM to others. Figure 2 illustrates the primary motivations for CAM use, showing that participants most commonly cited the desire to avoid side effects of modern medicine (24.9%) and alignment with cultural or religious beliefs (23.8%). Other notable factors included recommendations from family or friends (14.7%), treatment of chronic diseases (13.9%), and ease of access or low cost (12.5%). Overall, the reasons reflect a combination of perceived safety, cultural congruence, and social influence.

Table 3 presents the awareness and attitudes of the 420 participants toward CAM. Most participants agreed that CAM is effective for maintaining health (302; 71.9%), while 76 (18.1%) were neutral and 42

(10.0%) disagreed. Regarding safety, 188 (44.8%) agreed that CAM is safer than conventional medicine, 119 (28.3%) were neutral, and 113 (26.9%) disagreed. A majority agreed that CAM should be integrated with conventional medicine (275; 65.2%), with 89 (21.2%) neutral and 57 (13.6%) disagreeing. Willingness to try CAM in the future was reported by 248 (59.0%), whereas 122 (29.1%) were neutral and 50 (11.9%) disagreed. Many participants agreed that healthcare providers should discuss CAM with patients (274; 65.2%), while 71 (16.9%) were neutral and 75 (17.9%) disagreed. Finally, CAM use was viewed as reflective of cultural and religious beliefs by 311 participants (74.0%).

Table 4 compares participant characteristics by their attitude toward CAM (favorable vs. unfavorable/neutral). Bivariate analysis revealed that a favorable attitude was not significantly associated with age, sex, educational level, monthly income, marital status, or occupation (all $p > 0.05$). Significant determinants of a favorable attitude were identified as rural residence (89.3% vs. urban: 81.1%; $p = 0.04$) and being a CAM user (89.0% vs. non-user: 72.1%; $p < 0.0001$). In contrast, the presence of a chronic disease was associated with a significantly lower prevalence of a favorable attitude (62.5% vs. no chronic disease: 84.5%; $p = 0.01$).

Table 3: Awareness And Attitude of The Studied Participants Toward CAM (N=420).

Awareness and attitude items	Agree n (%)	Neutral n (%)	Disagree n (%)
I believe CAM is effective for maintaining health.	302 (71.9)	76 (18.1)	42 (10.0)

CAM is safer than conventional medicine.	188 (44.8)	119 (28.3)	113 (26.9)
CAM should be integrated with conventional medicine.	275 (65.2)	89 (21.2)	57 (13.6)
I am willing to try CAM for future health issues.	248 (59.0)	122 (29.1)	50 (11.9)
Healthcare providers should discuss CAM use with patients.	274 (65.2)	71 (16.9)	75 (17.9)
CAM use reflects my cultural and religious beliefs.	311 (74.0)	65 (15.5)	44 (10.5)

Table 4: Comparison Of Participant Characteristics Based on Attitude Toward CAM.

Characteristics	Favorable attitude N= 349	Unfavorable and neutral attitude N= 71	P value
Age in years			
18-<30	180 (84.9)	32 (14.1)	0.65
30-<50	128 (81.5)	29 (18.5)	
≥50	41 (80.4)	10 (19.6)	
Sex			
Male	132 (81.0)	31 (19.0)	0.35
Female	217 (84.4)	40 (15.6)	
Educational level			
Secondary and less	83 (82.2)	18 (17.8)	0.77
University and higher	266 (83.4)	53 (16.6)	
Monthly family income (SR)			
<5000	62 (83.8)	12 (16.2)	0.97
5000-15000	221 (82.8)	46 (17.2)	
>15000	66 (83.5)	13 (16.5)	
Marital status			
Single	108 (80.0)	27 (20.0)	0.44
Married	205 (84.0)	39 (16.0)	
Divorced/Widow	36 (87.8)	5 (12.2)	
Occupation			
Student	149 (82.3)	32 (17.7)	0.68
Employed	105 (82.7)	22 (17.3)	
Non-employed	86 (86.0)	14 (14.0)	
Retired	9 (75.0)	3 (25.0)	
Residence			
Urban	257 (81.1)	60 (18.9)	0.04*
Rural	92 (89.3)	11 (11.7)	
History of chronic diseases			
No	334 (84.5)	62 (15.5)	0.01*
Yes	15 (62.5)	9 (37.5)	
Use of CAM			
No	106 (72.1)	41 (27.9)	<.0001*
Yes	243 (89.0)	30 (11.0)	

*Significant

Table 5: Factors Associated with CAM Use: Multivariable Logistic Regression Analysis.

Factors**	CAM use (n= 273)	No CAM use (n= 147)	OR (95% CI)	P value
Age in years				
18-<30	168	44	1.00	-
30-<50	59	98	0.15 (0.10-0.23)	<.0001*
≥ 50	46	5	1.30 (0.46-3.56)	0.63
Sex				
Male	77	86	0.30 (0.20-0.48)	<.0001*
Female	196	61	1.00 (Ref.)	-
Educational level				
Secondary and less	67	34	1.00 (Ref.)	0.02*
University and higher	206	113	0.50 (0.27-0.87)	
Monthly family income (SR)				
<5000	32	42	81 (0.38-1.72)	0.70
5000-15000	182	85	0.90 (0.46-1.69)	0.58
>15000	30	49	1.00 (Ref.)	-
Marital status				
Single	79	56	1.00 (Ref.)	-
Married	166	78	60 (0.25-1.23)	0.15
Divorced/Widow	28	13	0.70 (0.23-2.18)	0.55

Occupation				
Student	125	56	1.00 (Ref.)	-
Employed	87	40	0.98 (0.65-1.79)	0.91
Non-employed	55	45	0.60 (0.35-0.95)	0.01*
Retired	6	6	0.48 (0.20-1.55)	0.18
Residence				
Urban	203	114	1.30 (0.75-2.24)	0.38
Rural	70	33	1.00 (Ref.)	-
History of chronic diseases				
No	268	128	0.10 (0.03-0.28)	<.0001*
Yes	5	19	1.00 (Ref.)	-
Favorable attitude				
No	30	41	1.00 (Ref.)	-
Yes	243	106	4.10 (2.18-7.70)	<.0001*

*Significant. **Each Factor Is Adjusted by Others in The Table

Table 5 shows the findings of a multivariable logistic regression analysis assessing factors associated with CAM use among 273 CAM users and 147 non-users. Age was significantly associated with CAM use, where participants aged 30–<50 had lower odds of using CAM (OR=0.15, 95% CI: 0.10–0.23, $p<0.0001$) compared to those aged 18–<30, while participants aged ≥ 50 showed no significant difference (OR=1.30, 95% CI: 0.46–3.56, $p=0.63$). Males were significantly less likely to use CAM than females (OR=0.30, $p<0.0001$). Higher education was associated with lower CAM use, with university-educated participants having reduced odds compared to those with secondary education or less (OR=0.50, 95% CI: 0.27–0.87, $p=0.02$). Non-employed individuals had lower odds of CAM use compared to students (OR=0.60, 95% CI: 0.35–0.95, $p=0.01$), whereas employed and retired participants did not show significant differences. A history of chronic diseases was linked to lower CAM use (OR=0.10, 95% CI: 0.03–0.28, $p<0.0001$). In contrast, participants with a favorable attitude toward CAM had markedly higher odds of using CAM (OR=4.10, 95% CI: 2.18–7.70, $p<0.0001$). Monthly family income, marital status, and residence were not significantly associated with CAM use.

4. DISCUSSION

The present study examined the prevalence, patterns, and determinants of CAM use in Madinah City, Saudi Arabia. The observed prevalence of 65% is consistent with findings from other regions within the Kingdom. For example, a study conducted in Jeddah reported a comparable prevalence of 62.5% [11]. In that study, the most frequently used CAM modalities included herbal products (25.4%), acupuncture (21.2%), cupping (12%), honey (9.5%), cauterization (7.4%), medical massage and manual bone manipulation (4%), and traditional bone setting (2.1%). Similarly, a national study reported a higher CAM prevalence of 76.7% among patients with chronic diseases, with spiritual practices such as

Ruqya being the most commonly utilized modality [12]. In our study, honey, herbal products, and black seeds accounted for 53.1% of all CAM use, followed by cupping at 20.1%, while Ruqya represented only 5.5%.

These findings reinforce the deeply rooted integration of CAM approaches into health-seeking behaviors among the Saudi population. Further supporting this trend, a recent study in the Riyadh region reported that 86% of participants had used CAM at some point in their lives, primarily adults aged 36–45 years [13]. In contrast, a study conducted in Qassim Province reported a slightly lower prevalence (59.8%), predominantly among older women (mean age 44.5 years) with lower educational attainment [14].

Regionally, our findings align with CAM utilization patterns reported across Gulf Cooperation Council (GCC) countries. A recent systematic review indicated that CAM use is highly prevalent in the Middle East, frequently exceeding 50%, driven by perceptions of safety, strong cultural traditions, and influence from social networks [15]. In neighboring Jordan and Palestine, CAM prevalence has been reported at 70% and 88.3%, respectively [16,17]. Such variation is expected and may be attributed to differences in demographic characteristics, cultural and religious practices, socioeconomic status, and the local availability of herbs and traditional therapies. In contrast, when compared with international data, particularly from Western countries, CAM use in our cohort appears substantially higher. A large national survey in the United States, for instance, reported a prevalence of approximately 36% [18]. In Europe, one-year CAM utilization rates were 23% in Denmark, 49% in France, and 46% in Germany [19]. These differences may stem from demographic variations [20], the availability and cultural acceptance of herbal remedies, or inconsistencies in the operational definition of CAM across studies. For example, cupping, widely practiced in Saudi Arabia and accounting for nearly 20.1% of CAM use in our

sample, is not traditionally classified as CAM in many Western contexts. Its popularity outside the region only gained international attention after Olympic athletes adopted dry and wet cupping during the 2016 Games, despite limited scientific evidence supporting its benefits in sports performance [21]. In general, the specific patterns of CAM use in Saudi Arabia, and in Al-Madinah in particular, appear to be dominated by forms of "Prophetic medicine" (e.g., black seed, honey, cupping/Hijama) and spiritual remedies (e.g., Quran-based treatments), distinguishing them from Western patterns, which more often emphasize vitamins, dietary supplements, and manipulative therapies [7,12]. This pattern underscores the need for healthcare providers in the region to adopt cultural competence, engaging in open, respectful, non-judgmental dialogue with patients about their CAM use so as to ensure that care is safe, coordinated, and integrated.

The finding that 89.7% of users reported CAM "when needed," and over 60% for under a year, suggests CAM is used as a supplementary or optional therapy rather than a continuous substitute. This pattern may reflect episodic health needs or a trial-based, cautious approach rather than chronic reliance. It aligns with findings from other Saudi populations where many use CAM in response to specific health events [7, 22]. The predominance of honey, herbs, and black seeds, followed by cupping, reflects traditional and religiously rooted practices in the region. For example, similar studies conducted in Madinah [7] and Riyadh [8] cities reported that ginger, honey, frankincense, and cupping were among the most commonly used practices. This underscores the deeply entrenched role of natural remedies in Saudi cultural and religious medicine. The fact that 85.7% did not consult healthcare providers and 87.9% spent less than 1,000 SR yearly indicates that CAM is largely self-initiated and financially accessible. This echo concerns raised in other Saudi contexts: patients often do not disclose CAM use to physicians, and cost is low relative to conventional medical care. Self-direction raises safety issues, especially without professional guidance.

Although 27.2% of CAM users in this study reported experiencing side effects, nearly 80% stated that they would still recommend CAM to others. This indicates that even when adverse effects are acknowledged, users perceive the benefits or value of CAM to outweigh potential risks. It also reflects a persistently positive perception of CAM, likely reinforced by cultural beliefs, trust in traditional

remedies, and faith-based practices. Similar trends have been observed among cancer patients in Saudi Arabia, where CAM use remains common despite the possibility of harm [20].

The motivations identified in our study, particularly the desire to avoid side effects associated with modern medicine and the influence of cultural or religious beliefs, are consistent with previous national evidence showing that spirituality, tradition, and social influence are central drivers of CAM adoption in Saudi Arabia [8,12,25]. This highlights how health-seeking behaviors are deeply intertwined with cultural worldview. Recommendations from family and friends (14.7%) further emphasize the strong social networks shaping CAM practices, a recurrent finding in Saudi studies [7,12,22–24]. Other notable motivations included managing chronic disease (13.9%) and the appeal of accessibility and low cost (12.5%), which mirror patterns reported among older adults and in rural communities, where CAM is often preferred due to its availability and affordability [13]. Additionally, several regional studies have reported low rates of CAM disclosure to healthcare providers among patients with chronic illnesses [26–28], underscoring a persistent communication gap in clinical encounters. Taken together, these findings indicate that while CAM use in Madinah is both widespread and positively perceived, there is a critical need for healthcare systems to engage patients more proactively about their CAM practices to ensure safe, informed, and well-coordinated care.

The predictors identified in this study show that younger adults under the age of 30 were more likely to use CAM. Female participants also demonstrated significantly higher CAM use than males, a finding consistent with previous Saudi and international studies [7,8,14,22–24,29]. Higher educational attainment was associated with lower CAM use, suggesting that individuals with less education may rely more on traditional therapies [14]. Unexpectedly, participants with chronic diseases had markedly lower odds of CAM use, which contrasts with earlier Saudi studies reporting higher CAM utilization among those with chronic conditions [26–28]. Attitudes were the most influential predictor, with individuals holding favorable views of CAM being over four times more likely to use it. This aligns with findings from a Malaysian study, which reported that stronger beliefs in CAM were associated with more positive attitudes and a higher likelihood of CAM use [30].

This study has several strengths. It provides current, region-specific data on CAM prevalence,

patterns, attitudes, and determinants among adults in Madinah City, addressing an important knowledge gap in Saudi Arabia. Unlike other similar studies, the use of multivariate logistic regression in this research enabled the identification of key predictors of CAM use, providing insights that can guide culturally tailored interventions and inform healthcare planning. Additionally, recruiting a diverse sample via social media enhanced accessibility and engagement with participants. However, some limitations should be acknowledged. The cross-sectional design prevents causal inference between predictors and CAM use. Data were self-reported, which may introduce recall bias or social desirability bias. Recruitment through social media may have excluded individuals without internet access or those less familiar with digital platforms, potentially limiting the representativeness of the

sample. Finally, the study did not evaluate the clinical effectiveness or safety of the CAM modalities reported, which limits conclusions regarding health outcomes.

In conclusion, CAM use is highly prevalent among adults in Madinah City, Saudi Arabia, with honey, herbs, black seeds, and cupping being the most commonly used modalities. Use is largely driven by positive attitudes, cultural and religious beliefs, and the desire to avoid side effects of modern medicine. Despite widespread use, the majority of participants do not disclose CAM practices to healthcare providers, highlighting a critical gap in patient-provider communication. These findings underscore the importance of culturally sensitive counseling and integrating discussions about CAM into routine healthcare to ensure safe and coordinated care.

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Conflict of Interest: The authors declare that there are no conflicts of interest related to this study.

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