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ATTITUDES, KNOWLEDGE, AND AWARENESS LEVEL OF USING HERBS TO TREAT GYNECOLOGICAL DISORDERS

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Abstract

Background: Usage of herbal medicine is wildly accepted for treating gynecological conditions, such as menstrual abnormalities, menopause, reproductive issues, and infections. Some studies showed that ginger, cranberry, valerian, raspberry and chamomile were believed to be the most effective herbs for women especially those who were pregnant. Traditional herbal medicine is still practiced today in many parts of the world, and interest in herbal treatments for gynecological diseases is still present. However, usage, knowledge, and of such practices can vary among different regions and communities. This study was aimed to assess attitudes, knowledge, and awareness level of using herbs to treat gynecological disorders in Saudi women.

Methodology: This is a cross-sectional questionnaire survey based on a structured questionnaire that was developed by authors, was undertaken online toward the Saudi female to measure their level of knowledge, awareness, and attitudes of using herbal medicine in treatment of gynecological conditions.

Results: The study included 385 participants, the majority of respondents fall within the 18-24 age range and reside in the West. A considerable number of individuals have turned to CAM treatments, with medical herbs being the most popular choice. The frequency of CAM usage varies, with a majority reporting occasional use. Interestingly, a significant portion of respondents did not inform their doctor about their CAM usage. A notable portion of respondents prefer herbal treatments over prescribed medications and express beliefs about the safety and side effects of herbal medicine. Statistically significant associations between the use of herbal medicines and age, marital status, location, and occupation was found.

Conclusion: In conclusion, herbal medicine has been used for centuries in Saudi Arabia to treat gynecological disorders and is a topic of growing interest and research. Many herbs have been shown to have medicinal properties that can help alleviate symptoms of menstrual disorders, menopausal symptoms, and other gynecological issues. While herbal remedies can be effective, it is important to use them with caution and under the guidance of a qualified healthcare professional. As more research

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is conducted, we may gain a better understanding of the safety and efficacy of herbal medicine in the treatment of gynecological disorders.

Keywords: herbs, medicinal plants, gynecological conditions, Saudi Arabia

Introduction:

The use of medicinal plants as a therapeutic tool is widely accepted for the treatment of various conditions [1]. Despite the few information that is available regarding the safety and effectiveness of that practice [2], Herbal therapy for gynecological diseases is considered to be widely accepted [3]. Some studies showed that ginger, cranberry, valerian, raspberry and chamomile were believed to be the most effective herbs for women especially those who were pregnant [4].

Across many civilizations, people have used plants for therapeutic purposes, including the treatment of gynecological diseases. Women's health issues are frequently addressed with traditional herbal medicine techniques that have been handed down through the years and frequently make use of plant materials like roots, leaves, and other botanical parts [5]. Herbal treatments were used in many ancient cultures, especially those in the Middle East, to treat gynecological diseases such menstrual abnormalities, menopause, reproductive issues, and infections. These herbal remedies frequently relied on observations and passed-down information about the therapeutic qualities of certain plants. Traditional herbal medicine is still practiced today in many parts of the world, and interest in herbal treatments for gynecological diseases is still present. However, usage, knowledge, and of such practices can vary among different regions and communities [6,7].

In 2020, a study was conducted in district Buner, Pakistan with a population with a total of 283 men 43 of them are herbalists (Hakims), and 249 women 70 of them are herbalists (Dayiahs) ranging in age from 20 to 110 years, the results showed the majority of the ethnobotanical knowledge was obtained from informants over the age of 50. Also, the data showed that females are more knowledgeable than males as women play a crucial role providing daily meals, homemade herbal remedies, medications, as well as the maintenance of everyone in the family's health, Additionally, it was found that older individuals possess greater plant knowledge, possibly as a result of their extensive experience [8].

Another study revealed that only older female community members, midwives, and herbalists known as Hakims have access to ethnomycological knowledge, perhaps as a result of the customs and religious restrictions that keep women primarily inside the home in Pakistan's rural areas. According to reports, the younger generation has no idea what traditional therapies are and has no interest in learning about them [9].

Another study was conducted in North Waziristan, Pakistan with 130 informants in all, with a male to female ratio of 80.77% to 19.23% (Dayiahs). The majority of them (47.69%) were over 65, followed by those in their 50s and 60s (40.77%) and those in their 35s and 50s (11.54%). 76 herbalists, 29 professionals, and 25 housewives participated. Illiterate people had a higher rate of knowledge and use of therapeutic plants for the treatment of gynecological disorders, accounting for 40.77% and were more prevalent in the elders. Traditional knowledge of healing plants is inherited orally and verbally from ancestors and passed down from generation to generation. Notably, information and expertise about traditional gynecological illnesses are dwindling due to the deaths of elder ladies (Dayiahs) in the community [10].

There haven't been many quantitative studies on the utilization of traditional methods for gynecological care. The number of herbs used by pregnant women is rarely or never documented in the data. The use

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of medicinal plants for women's health, particularly during pregnancy, was the subject of few studies in Arab countries. These studies were carried out in Palestine, Egypt, Oman, and Qatar. However, one investigation on the use of medicinal herbs both during pregnancy and after birth was carried out in Saudi Arabia. Information is rapidly fading as a result of traditional cultures deteriorating and inaccurate documentation brought on by modernization since the younger generation is uninterested in learning about these crucial practices and healing methods.

Therefore, the main purpose of this study was to evaluate knowledge among Saudi female and to analyze their attitudes towards the use of herbs for the treatment of gynecological problems.

Objective**s:**

This study was aimed to assess attitudes, knowledge, and awareness level of using herbs to treat gynecological disorders in Saudi women.

Materials and Methods:

Study design: During the period of October 2023 to October 2024, a cross-sectional questionnaire survey, based on a structured questionnaire that was developed by authors, was undertaken toward the Saudi female to measure their level of knowledge, awareness, and attitudes of using herbal medicine in treatment of gynecological conditions.

Study setting: Participants, recruitment, and sampling procedure: All women healthy or not, who had been used herbs or not, at Saudi Arabia older than 15 included.

Inclusion and Exclusion criteria: Saudi females who are older than 18 were included from all social classes. Males or anyone who's under 18, were excluded in this study.

Sample size: We calculated the sample size using the Raosoft online sample size calculator (http://www.raosoft.com/samplesize.html) with a predetermined error margin of 5% and confidence level of 95%. The calculated sample size was minimum 384.

Analyzes and entry method: Data was entered on the computer using Microsoft Office Excel Software program for windows. Data was then transferred to Statistical Package of Social Science Software (SPSS) program, to be statistically analyzed.

Results:

Table (1) shows that the majority falls within the 18-24 range, comprising 43.1% of the sample, followed by those aged 25-31 at 17.1%. Geographically, the largest proportion resides in the West at 55.8%, with the North following at 18.7%. In terms of occupation, students make up 40.8%, while 22.3% are employed and 36.9% are not employed. Family income is predominantly medium, with 61.0% falling into this category. Finally, the sample is evenly split in terms of marital status, with

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51.2% being married and 48.8% single.

Table (1): Sociodemographic characteristics of participants (n=385)

Parameter		No.	%
Age	24-18	166	43.1
	31-25	66	17.1
	38-32	47	12.2
	45-39	41	10.6
	More than 45	65	16.9
Location	East	51	13.2
	Middle	37	9.6
	North	72	18.7
	South	10	2.6
	West	215	55.8
Occupation	student	157	40.8
	employee	86	22.3
	Not employed	142	36.9
Family income	Weak	19	4.9
	Medium	235	61.0
	Excellent	131	34.0
Marital Status	Married	197	51.2
	Single	188	48.8

According to table (2), a significant number of individuals have turned to complementary and alternative medicine (CAM) treatments, with medical herbs being the most popular choice at 55.1%. Other commonly used CAM treatments include cupping therapy (14.0%) and massage therapy (15.6%). Interestingly, energy therapy and acupuncture are also being utilized, albeit to a lesser extent, at 1.6% and 3.4% respectively. A considerable portion of respondents (37.1%) reported not using any of these treatments. In terms of frequency, the majority (41.0%) reported using CAM treatments sometimes, while 20.8% indicated using them scarcely. It's noteworthy that a mere 0.5% reported using CAM treatments daily. When it comes to supervision, a significant majority (86.2%) stated that they did not have their CAM treatments supervised by a doctor. Additionally, 47.0% of respondents did not inform their doctor about their CAM usage, while 22.6% did.

Table (2): Use of herbal medicine among study participants (n=385).

Parameter		No.	%
Use one of those complementary and alternative medicine treatments	Medical Herbs	212	55.1
	Cupping therapy	54	14.0
	Massage therapy	60	15.6
	Energy therapy	6	1.6
	Acupuncture	13	3.4
	Don’t use it	143	37.1
How often?	Never used before	121	31.4
	Daily	2	.5

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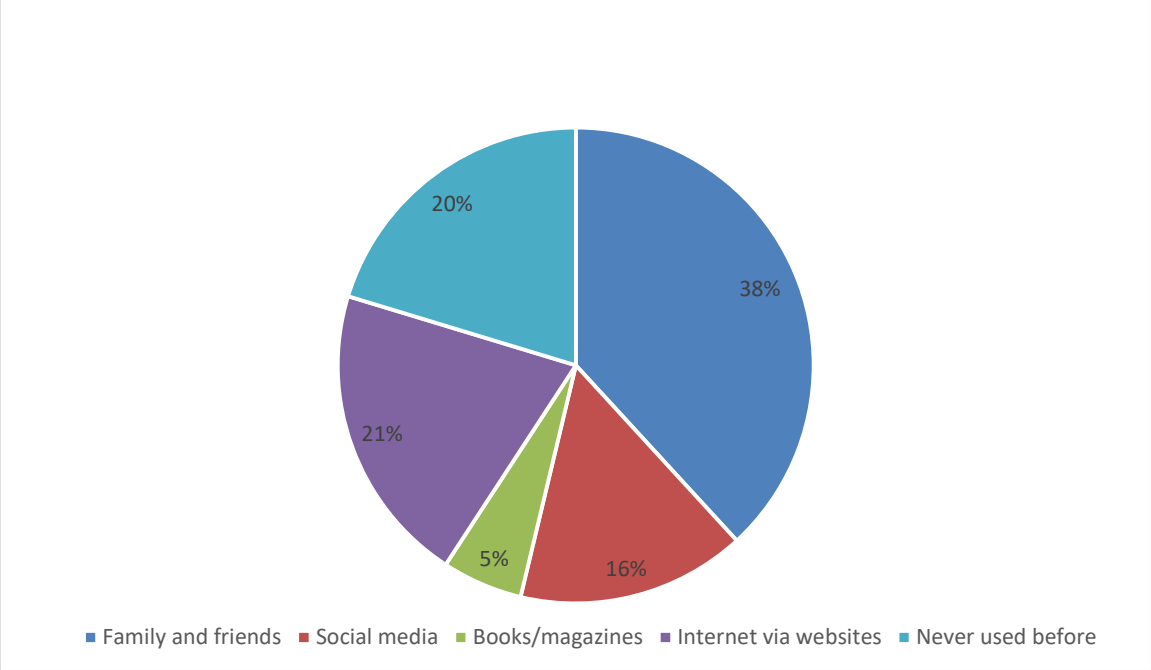
	regularly	24	6.2
	sometimes	158	41.0
	Scarcely	80	20.8
Supervision by doctor	Yes	53	13.8
	no	332	86.2
Told the doctor	Yes	87	22.6
	no	181	47.0
	Never used before	117	30.4

Figure (1) shows that, the most common sources of information include family and friends, with 56.6% of respondents relying on their personal network for advice. Social media platforms also play a significant role, with 23.1% of individuals utilizing these channels to gather information about treatments. Additionally, 8.1% of respondents reported turning to books and magazines, while 30.4% sought information from the internet via websites. Interestingly, 30.1% of participants indicated that they had never used these treatment methods before.

Figure 1: Source of information about herbal medicine use in gynecological conditions among study participants.



In table (3), that a significant portion of respondents express a preference for herbal treatments over prescribed medications and doctor visits, with 47.0% agreeing that herbal treatment is better than taking medications and 29.4% believing it is better than taking prescribed medications. Additionally, 58.7% of respondents believe that herbal treatment is safe, while 65.2% acknowledge that herbal medicine has side effects, including interactions with medications, other herbs, and food. Furthermore, concerns about the potential for serious complications from herbal medicine are expressed by 33.2% of respondents. It is notable that only 11.9% of respondents believe that all herbal preparations are

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suitable for all ages.

Table (3): Knowledge of herbal medicine among study participants (n=385).

Parameter		No.	%
Herbal treatment is better than taking medications	Yes	181	47.0
	no	204	53.0
Herbal treatment is better than taking prescribed medications	Yes	113	29.4
	no	272	70.6
Herbal treatment is better than going to the doctor	Yes	82	21.3
	no	303	78.7
Herbal treatment is safe	Yes	226	58.7
	no	159	41.3
Herbal medicine has side effects	With medications	251	65.2
	With other herbs	243	63.1
	With food	79	20.5
	It has no side effects	48	12.5
Herbal medicine has bad side effects	Yes, serious complications that may lead to death	128	33.2
	Yes, mild complications such as allergies	188	48.8
	no	69	17.9
All herbal preparations used are suitable for all ages	Yes	46	11.9
	no	339	88.1

Table (4) indicates that a significant percentage of respondents, 64.7%, had used herbal medicines before starting treatment with conventional medications. The majority of these individuals obtained herbal medicines from herbal shops (64.9%), while a smaller percentage acquired them from pharmaceutical preparations (4.9%) or through planting (5.7%). The reasons for using herbal treatment varied, with 38.2% citing therapeutic reasons, 21.8% for complementary purposes, and 19.2% for preventive measures. A notable 70.4% of respondents reported noticing the effectiveness of herbal treatment after using it. Common herbal medicines used included ginger (66.0%), cinnamon (63.1%), and turmeric (34.8%). The survey also highlighted the most common diseases for which herbs are used, such as menstrual pain (80.0%) and urinary tract infections (19.2%). Reasons behind using herbal treatment included easy access to herbal medicine (43.1%), advice from someone (47.3%), and the perceived safety of herbal medicines (32.7%).

Table (4): Participants' attitude towards herbal medicine (n=385).

Parameter		No.	%
Used herbal medicines before treatment with medications	Yes	249	64.7
	no	136	35.3
Got herbal medicine from	Pharmaceutical preparation	19	4.9
	Herbal shop	250	64.9
	Planted	22	5.7

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	I've never had it before	94	24.4
Reasons that prompt to use herbal treatment	therapeutic	147	38.2
	complementary	84	21.8
	preventive	74	19.2
	Never used before	80	20.8
Noticed the effectiveness of herbal treatment after using it	Yes	271	70.4
	no	33	8.6
	Never used before	81	21.0
Common herbal medicines used	turmeric	134	34.8
	ginger	254	66.0
	cinnamon	243	63.1
	Peel	145	37.7
	Marmaria	21	5.5
	anise	22	5.7
	Licorice	27	7.0
	Sage	148	38.4
	The ring	98	25.5
	marjoram	78	20.3
	Fennel	172	44.7
Most common disease that herbs are used to treat	after birth	149	38.7
	Menstrual pain	308	80.0
	Polycystic ovary syndrome	87	22.6
	Miscarriage	43	11.2
	Infertility	17	4.4
	Urinary tract infection	74	19.2
	Pseudomembranous colitis	45	11.7
Reasons behind using herbal treatment	Easy access to herbal medicine	166	43.1
	Medicine fails to treat some cases	56	14.5
	High costs of medical medications	42	10.9
	Side effects of medications	120	31.2
	Advice from someone	182	47.3
	Rapid effects of herbal medicines	95	24.7
	More useful	97	25.2
	Cheap prices for herbal medicines	51	13.2
	Safe (no side effects)	126	32.7
	Frequent medical errors	33	8.6

Table (5) reveal that there is a statistically significant association between the use of herbal medicines and age (p=0.002), marital status (p=0.007), location (p=0.009), and occupation (p=0.002). The proportions of individuals using herbal medicines vary across different age groups, marital statuses, locations, and occupations. However, no significant association was found between the use of herbal medicines and economic situation (p=0.389).

Table (5): Use of herbal medicine for gynaecological conditions in association with

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sociodemographic characters of participants (n=385).

		Used herbal medicines before treatment with medications		Total (N=385)	P value
		Yes	No		
Age	18-24	91	75	166	**0.002**
		23.6%	19.5%	43.1%	
	25-31	48	18	66	
		12.5%	4.7%	17.1%	
	32-38	35	12	47	
		9.1%	3.1%	12.2%	
	39-45	34	7	41	
		8.8%	1.8%	10.6%	
	Over 45	41	24	65	
		10.6%	6.2%	16.9%	
marital status	Single	109	79	188	**0.007**
		28.3%	20.5%	48.8%	
	Married	140	57	197	
		36.4%	14.8%	51.2%	
Location	East	33	18	51	**0.009**
		8.6%	4.7%	13.2%	
	Middle	27	10	37	
		7.0%	2.6%	9.6%	
	North	56	16	72	
		14.5%	4.2%	18.7%	
	South	3	7	10	
		0.8%	1.8%	2.6%	
	West	130	85	215	
		33.8%	22.1%	55.8%	
Occupation	student	87	70	157	**0.002**
		22.6%	18.2%	40.8%	
	employee	67	19	86	
		17.4%	4.9%	22.3%	
	Not employed	95	47	142	
		24.7%	12.2%	36.9%	
Economic situation	Weak	10	9	19	**0.389**
		2.6%	2.3%	4.9%	
	Medium	150	85	235	
		39.0%	22.1%	61.0%	
	Excellent	89	42	131	
		23.1%	10.9%	34.0%	

Table (6) shows no significant difference in the preference for herbal treatment based on age, marital status, location, occupation, or economic situation, as indicated by the p-values.

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Table (6): Participants' belief about herbal medicine in association with their sociodemographic characters (n=385).

		Herbal treatment is better than taking medications		**Total (N=385)**	**P value**
		Yes	No		
Age	18-24	80	86	166	**0.797**
		20.8%	22.3%	43.1%	
	25-31	30	36	66	
		7.8%	9.4%	17.1%	
	32-38	25	22	47	
		6.5%	5.7%	12.2%	
	39-45	19	22	41	
		4.9%	5.7%	10.6%	
	Over 45	27	38	65	
		7.0%	9.9%	16.9%	
marital status	Single	91	97	188	**0.593**
		23.6%	25.2%	48.8%	
	Married	90	107	197	
		23.4%	27.8%	51.2%	
Location	East	25	26	51	**0.884**
		6.5%	6.8%	13.2%	
	Middle	20	17	37	
		5.2%	4.4%	9.6%	
	North	34	38	72	
		8.8%	9.9%	18.7%	
	South	5	5	10	
		1.3%	1.3%	2.6%	
	West	97	118	215	
		25.2%	30.6%	55.8%	
Occupation	student	75	82	157	**0.250**
		19.5%	21.3%	40.8%	
	employee	46	40	86	
		11.9%	10.4%	22.3%	
	Not employed	60	82	142	
		15.6%	21.3%	36.9%	
Economic situation	Weak	9	10	19	**0.867**
		2.3%	2.6%	4.9%	
	Medium	108	127	235	
		28.1%	33.0%	61.0%	
	Excellent	64	67	131	
		16.6%	17.4%	34.0%	

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iscussion:

Herbal medicine has been used for centuries to treat various ailments and gynecological disorders are no exception. In many cultures, traditional herbal remedies have been the primary form of healthcare for women, particularly in the treatment of menstrual disorders, menopausal symptoms, and other gynecological issues [3]. This study was aimed to assess attitudes, knowledge, and awareness level of using herbs to treat gynecological disorders in Saudi women.

Many of the herbs used in traditional gynecological remedies have been shown to have medicinal properties, such as anti-inflammatory, analgesic, and hormone-regulating effects. These herbs are often used in the form of teas, tinctures, capsules, or topical preparations [8]. According to our study results, a significant number of individuals have turned to complementary and alternative medicine (CAM) treatments, with medical herbs being the most popular choice at 55.1%. It was also revealed by a recent study conducted by Kennedy et al. [11] that most pregnant women take herbal medicine. Furthermore, Saudi Arabian customs and culture support the use of herbal remedies. The accessibility and convenience of use of herbal remedies also play a role in the rise in their use, and a lot of people think that traditional recipes are safe and have no negative side effects. According to a recent Saudi study, 42% of Jeddah adults reported using herbal medicines. The results of the general population's use of herbal medicines have been documented by several worldwide research [12]. The results of this investigation also agreed with information gathered from other nations. According to reports, the prevalence of using herbal medications was 33.9% among adults in Malaysia, 56.6% among adults in the Czech Republic, 57.3% among Americans, and 77.6% among Arabians [13–16]. In comparison to several other studies conducted globally, such as those conducted in Kuwait (71%) and Nigeria (67%), the general public in this survey uses herbal medications at a rate of 42% [17, 18].

One of the most well-known herbs used in the treatment of gynecological disorders is black cohosh. This herb has been traditionally used to alleviate symptoms of menopause, such as hot flashes, night sweats, and mood swings. Research has shown that black cohosh may help to regulate hormone levels and reduce the frequency and severity of menopausal symptoms. Another commonly used herb is dong quai, which is believed to have hormone-balancing and analgesic properties. It is often used to treat menstrual disorders, such as irregular periods and menstrual cramps [4]. Other herbs that are commonly used in the treatment of gynecological disorders include chaste tree berry, red clover, and wild yam. Chaste tree berry is often used to regulate the menstrual cycle and alleviate symptoms of premenstrual syndrome (PMS). Red clover contains phytoestrogens, which may help to alleviate menopausal symptoms and support bone health. Wild yam is believed to have anti-inflammatory and hormone-balancing effects and is often used to treat menstrual disorders and menopausal symptoms [9]. According to our findings, common herbal medicines used included ginger (66.0%), cinnamon (63.1%), and turmeric (34.8%).

While herbal remedies can be effective in treating gynecological disorders, it is important to use them with caution and under the guidance of a qualified healthcare professional. Some herbs may interact with medications or have contraindications for certain medical conditions. Additionally, the quality and potency of herbal products can vary, so it is important to purchase them from reputable sources [7]. In our study, 64.7% had used herbal medicines before starting treatment with conventional medications. According to a prior survey, 86% of people prefer prescription medication; a different study conducted in Saudi Arabia indicates that 69.9% of patients favour prescription medication over herbal remedies [19, 20].

According to our study results, there is a statistically significant association between the use of herbal

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medicines and age (p=0.002), marital status (p=0.007), location (p=0.009), and occupation (p=0.002). The proportions of individuals using herbal medicines vary across different age groups, marital statuses, locations, and occupations. However, no significant association was found between the use of herbal medicines and economic situation (p=0.389). This was in contrast to a prior Saudi study that revealed significant correlations between gender, income, and educational attainment. The statement "Herbal medicines can prevent all diseases" was found to be substantially related with respondents with greater incomes (>5000 or 10,000 Saudi Arabian Riyals). [12]. According to a recent University of Hail study of Saudi Arabia's northern general public, participants with greater incomes were substantially more knowledgeable about herbal medications [21]. According to previous reports, individuals who are older tend to have a greater inclination towards herbal treatments. Consequently, as people age, so does their understanding and usage of herbal medications [22]. This could be as a result of older adults taking more medications than younger adults do in order to stay healthy and prevent illness [23].

In recent years, there has been a growing interest in the use of herbal medicine to treat gynecological disorders, particularly among women who are seeking natural and alternative approaches to managing their health. As a result, more research is being conducted to evaluate the safety and efficacy of herbal remedies for gynecological issues. While there is still much to learn about the use of herbal medicine in gynecology, many women have found relief from their symptoms through the use of traditional herbal remedies [1, 7].

The study has several limitations. Firstly, the sample size could be a limitation, as it may be limited in scope, potentially affecting the generalizability of the findings to the broader population of Saudi women. Secondly, the reliance on self-reported attitudes, knowledge, and awareness levels might introduce bias or inaccuracies into the study. Lastly, the cross-sectional design of the study may limit the ability to establish causal relationships between attitudes, knowledge, and awareness levels of using herbs to treat gynecological disorders in Saudi women.

Several opportunities for further research and development are evident. Firstly, longitudinal research could be beneficial, tracking changes in attitudes, knowledge, and awareness levels of using herbs to treat gynecological disorders in Saudi women over time. Secondly, intervention studies could be conducted to evaluate the effectiveness of educational programs or interventions aimed at improving knowledge and awareness of herbal treatments for gynecological disorders among Saudi women. Lastly, comparative studies could be undertaken to compare attitudes, knowledge, and awareness levels of using herbs to treat gynecological disorders in Saudi women with those of women from different cultural backgrounds or in different geographic regions. These future directions could enrich the understanding of herbal treatments for gynecological disorders among Saudi women and beyond.

Conclusion:

In conclusion, herbal medicine has been used for centuries in Saudi Arabia to treat gynecological disorders and is a topic of growing interest and research. Many herbs have been shown to have medicinal properties that can help alleviate symptoms of menstrual disorders, menopausal symptoms, and other gynecological issues. While herbal remedies can be effective, it is important to use them with caution and under the guidance of a qualified healthcare professional. As more research is conducted, we may gain a better understanding of the safety and efficacy of herbal medicine in the treatment of gynecological disorders.

Acknowledgement:
We thank the participants who all contributed samples to the study.

Ethical approval
Ethical approval was obtained from the research ethics committee of the University of Tabuk with Application number: UT-418-233-2024. An informed consent was obtained from each participant after explaining the study in full and clarifying that participation is voluntary. Data collected were securely saved and used for research purposes only.

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The study did not receive any external funding.

Conflict of interests
The authors declare that there are no conflicts of interest.

Informed consent:
Written informed consent was obtained from all individual participants included in the study.

Data and materials availability

All data associated with this study are present in the paper.

References:

1. Author C, Al-Sodany YM, Bazaid A, Mosallam HA. Medicinal Plants in Saudi Arabia: I. Sarrwat Mountains at Taif, KSA. Academic Journal of Plant Sciences. 2013;6(4):134–45.
2. Al Essa M, Alissa A, Alanizi A, Bustami R, Almogbel F, Alzuwayed O, et al. Pregnant women's use and attitude toward herbal, vitamin, and mineral supplements in an academic tertiary care center, Riyadh, Saudi Arabia. Saudi Pharmaceutical Journal. 2019 Jan 1;27(1):138–44.
3. Al-Yousef HM, Wajid S, Sales I. Knowledge, Beliefs and Attitudes towards Herbal Medicine – A Community-based Survey from a Central Region of Saudi Arabia. Indian Journal of Pharmacy Practice. 2019 Aug 12;12(3):188–93.
4. Illamola SM, Amaeze OU, Krepkova L V., Birnbaum AK, Karanam A, Job KM, et al. Use of herbal medicine by pregnant women: What physicians need to know. Front Pharmacol. 2019;10.
5. Ribeiro Mariano M, Carlos Alvarado Alcócer J, Charlianne de Lima Pereira M, de Souza Maciel N, Jardsom Moura Luzia F, de Jesus Silva Bezerra dos Anjos S, et al. Use of Medicinal Plants in Care of Women With Gynecological Diseases: Integrative Review. Article in International Journal of Development Research [Internet]. 2019;09(April):26373–80. Available from: https://www.researchgate.net/publication/332464195
6. Al-Yousef HM, Wajid S, Sales I. Knowledge, Beliefs and Attitudes towards Herbal Medicine – A Community-based Survey from a Central Region of Saudi Arabia. Indian Journal of Pharmacy Practice. 2019;12(3):188–93.
7. Alotibi H, Zarban A, Jan R, Helal R. Non-Pharmacological Methods to Relieve Dysmenorrhea among Students of Health Colleges in Saudi Arabia. International Journal of Novel Research in Healthcare and Nursing. 2020;7(3):481–92.

ISSN:1624-1940
http://magellanes.com/

8. Jan HA, Jan S, Bussmann RW, Ahmad L, Wali S, Ahmad N. Ethnomedicinal survey of the plants used for gynecological disorders by the indigenous community of district buner, pakistan. Ethnobotany Research and Applications. 2020;19.
9. Aziz MA, Khan AH, Ullah H, Adnan M, Hashem A, Abd Allah EF. Traditional phytomedicines for gynecological problems used by tribal communities of Mohmand Agency near the Pak-Afghan border area. Revista Brasileira de Farmacognosia. 2018;28(4):503–11.
10. Rahman AHMM, Jahan-E-Gulsan SM, Naderuzzaman ATM. Ethno-Gynecological Disorders of Folk Medicinal Plants Used by Santhals of Dinajpur District, Bangladesh. Frontiers of Biological and Life Sciences. 2014;2(3):62.
11. Kennedy DA, Lupattelli A, Koren G, Nordeng H. Safety classification of herbal medicines used in pregnancy in a multinational study. BMC Complement Altern Med. 2016;16:102.
12. Zaidi SF, Saeed SA, Khan MA, et al. Public knowledge, attitudes, and practices towards herbal medicines; a cross-sectional study in Western Saudi Arabia. BMC Complement Med Ther. 2022;22(1):326. Published 2022 Dec 8. doi:10.1186/s12906-022-03783-y
13. Knotek K, Verner V, Chaloupkova P, Kokoska L. Prevalence and use of herbal products in the Czech Republic: over-the-counter survey among adult pharmacies clients. Complement Ther Med. 2012;20(4):199–206. doi: 10.1016/j.ctim.2011.12.010.
14. Aziz Z, Tey N. Herbal medicines: prevalence and predictors of use among Malaysian adults. Complement Ther Med. 2009;17(1):44–50. doi: 10.1016/j.ctim.2008.04.008.
15. Kennedy J. Herb and supplement use in the US adult population. Clin Ther. 2005;27(11):1847–1858. doi: 10.1016/j.clinthera.2005.11.004.
16. AlBraik FA, Rutter PM, Brown D. A cross-sectional survey of herbal remedy taking by united Arab emirate (UAE) citizens in Abu Dhabi. Pharmacoepidemiol Drug Saf. 2008;17(7):725–732. doi: 10.1002/pds.1591.
17. Awad A, Al-Shaye D. Public awareness, patterns of use and attitudes toward natural health products in Kuwait: a cross-sectional survey. BMC Complement Altern Med. 2014;14(1):105. doi: 10.1186/1472-6882-14-105.
18. Oreagba IA, Oshikoya KA, Amachree M. Herbal medicine use among urban residents in Lagos, Nigeria. BMC Complement Altern Med. 2011;11(1):117. doi: 10.1186/1472-6882-11-117.
19. The pattern of alternative medicine use among patients attending health centres in a military community in Riyadh. Al-Faris EA. https://www.jfcmonline.com/article.asp?issn=2230-8229;year=2000;volume=7;issue=2;spage=17;epage=25;aulast=Al%2DFaris J Family Community Med. 2000;7:17.
20. Alamoudi A, Alrefaey Y, Asiri Y, Farrash E, Farahat F, Zaidi SF. Pattern and Factors Associated With the Utilization of Herbs As Medications Among Patients in a Tertiary Care Hospital in Western Saudi Arabia. Cureus. 2021;13(11):e19502. Published 2021 Nov 12. doi:10.7759/cureus.19502
21. Alkhamaiseh SI, Aljofan M. Prevalence of use and reported side effects of herbal medicine among adults in Saudi Arabia. Complement Ther Med. 2020;48:102255. doi: 10.1016/j.ctim.2019.102255.
22. de Souza Silva JE, Souza CAS, da Silva TB, Gomes IA, de Carvalho BG, de Souza Araújo AA, de Lyra-Júnior DP, da Silva WB, da Silva FA. Use of herbal medicines by elderly patients: a systematic review. Arch Gerontol Geriatr. 2014;59(2):227–233. doi: 10.1016/j.archger.2014.06.002.
23. Nisly NL, Gryzlak BM, Zimmerman MB, Wallace RB. Dietary supplement polypharmacy: an unrecognized public health problem? Evid Based Complement Alternat Med. 2010;7(1):107–113. doi: 10.1093/ecam/nem150.

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