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A Questionnaire Study of Knowledge, Attitude, and Practices of Herbal Medications Among Syrians

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Abstract*: *Access to medicines is an essential aspect of healthcare and vital to human well-being. It is necessary to understand people's awareness of the importance of using medications to maintain their health. This study aimed to assess the level of understanding regarding the use of herbal medicines compared to synthetic medications in Syria through a distributed questionnaire. 66.5% of participants were female. 63.5% of the participants were aged between 18 and 25 years. In terms of education, 82% of participants had university degrees. Students comprise the largest professional group, representing 62% of participants. 54.5% live in the city, and 58.5% do not belong to the medical or health sector. The percentage of prior knowledge or direct experience with herbal medicine is low, indicating a lack of knowledge about alternative medicine in the community. Many participants also expressed their confidence in these medications, particularly for treating minor conditions such as colds and respiratory disorders. However, the results also do not reflect awareness of the potential risks of using alternative or opposing herbal medicines, including interactions with chemical medications. Participants used non-scientific sources of information, such as the internet or personal experiences, which is a real development of these medications to stimulate and enhance their effectiveness.

Keywords*: *Herbal Medications, Practices, Knowledge, Survey, Syrians.

Abbreviations:
BCSs: Breast Cancer Subtypes

I. INTRODUCTION

Since the beginning of history [1], plants have played a crucial role in treating illnesses [2] and promoting human health [3]. The use of medicinal plants has been practised for centuries before the advent of synthetic medications [4]. Nature was the primary source of treatment [5]. Traditional medicine mostly relied on herbs [6] and plants found in the local environment [7]. In ancient civilizations such as the Pharaonic [8], Chinese [9], Indian (Ayurvedic) [10], and Greek civilizations [11], the use of thousands of plants to treat various ailments has been documented [12], some of which are still in use today [13]. In traditional Chinese medicine [14], a mixture of herbs is used to balance the body's elements [15], while conventional Indian medicine depends on herbs to boost immunity and detoxify the body [16]. In the Arab world [17], Ibn Sina and Al-Razi played significant roles in documenting and studying medicinal plants [18], helping advance pharmacology [19]. Phyto-based medicines are still used in many countries [20], such as China [21], India [22], Africa [23], Latin America [24], and some European countries like Germany [25] and France [26]. These medicines are used to treat colds [27], digestive issues [28], insomnia [29], stress [30], chronic pain [31], support the immune system [32], and improve mood [33]. Some are sold as capsules [34], oils [35], or drinks [36]. These products are prepared under strict standards, ensuring their quality [37]. One significant benefit of herbal medicines is that they are often less toxic than chemical drugs [38] and include natural ingredients that interact gently with the body [39]. They are widely available [40], usually more affordable [41], and accessible to everyone [42]. Plus, the sustainable production of herbal medicines helps preserve the environment [43]. However, there are some risks [44]. Although they are natural [45], certain herbs can be toxic or cause serious side effects if misused or taken in the wrong amounts [46]. The lack of extensive clinical studies on herbal preparations makes it hard to confirm their effectiveness [47]. Another common issue is interactions between herbal and synthetic medicines [48]. For instance, some plants can influence the effectiveness of heart or antihypertensive medications [49]. Herbal medicines do not always conflict with synthetic drugs and can sometimes serve as complementary treatments [50], but only under medical supervision [51]. While synthetic medications focus on a single active substance to treat specific diseases [52], medicinal plants contain complex mixtures of compounds that may work together across multiple systems in the body [53]. With the recent trend of returning to nature [54], many pharmaceutical companies are now studying medicinal herbs and trying to extract their active ingredients to develop safer [55] and more effective [56] medicines. This highlights the importance of combining traditional knowledge with modern scientific research for developing well-studied and safe natural remedies.

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II. METHODS

A social media survey was conducted between April and May 2025 to assess the impact of awareness-raising measures on the use of herbal and synthetic medications. The research included several questions about participants' demographics and knowledge of herbal medicines.

III. RESULTS

A. Demographic Data of Participants

This study included a total of 208 responses. Table I displays the demographic attributes of the participants.

Table I: Demographic Characteristics of Participants.

Demographic Characteristics		Total Number of Participants (200)	%
Age (years)	Under 18	10	5%
	18 -25	127	63.50%
	26 -35	35	17.50%
	36 -45	11	5.50%
	Up 45	17	8.50%
Sex	Male	67	33.50%
	Female	133	66.50%
Professional status	Student	124	62%
	Employee	31	15.50%
	Freelance	20	10%
	Unemployed	25	12.50%
Educational level	High school or less	25	12.50%
	University	164	82%
	Postgraduate studies	11	5.50%
Residence	Countryside	91	45.50%
	City	109	54.50%
Do you study or work in the medical or health field?	Yes	83	41.50%
	No	117	58.50%

The questionnaire was distributed to 200 participants to study individuals' opinions and tendencies regarding herbal medications. Results showed that 66.5% of the participants were female, while 33.5% were male. The 18–25 age group represented the most significant portion (63.5%), followed by the 26–35 age group (17.5%). Regarding education level, the majority (82%) held university degrees, 12.5% had completed secondary education or less, and 5.5% had postgraduate studies. Regarding occupational status, most respondents were students (62%), followed by employees (15.5%), then unemployed individuals (12.5%), and freelancers (10%). Additionally, 54.5% of participants lived in city areas. 45.5% lived in country areas. Around 41.5% were working or studying in the medical or health field.

B. Participant Knowledge About Herbal Medications

Tables II and III show the survey results regarding participants' knowledge of herbal medicines.

Table II: Results of Participants' Knowledge of Herbal Medications

Questions	Options	Number of Participants (%)
Have you used herbal medications before?	Yes	139 (69.5%)
	No	61 (30.5%)
Where do you get your medical information about medications?	Doctor	93 (46.5%)
	Pharmacist	112 (56%)
	Internet	79 (39.5%)
	Family and friends	51 (25.5%)
	Other sources	12 (6%)
Do you know the difference between herbal and synthetic medications?	Yes	143 (71.5%)
	No	57 (28.5%)
In your opinion, are herbal medications safer than synthetic medications?	Yes	153 (76.5%)
	No	47 (23.5%)
Do you think the effectiveness of herbal medications is equal to or superior to synthetic medications?	Sometimes	172 (86%)
	Always	14 (7%)
	Never	14 (7%)
How often do you use herbal medications?	Always	16 (8%)
	Sometimes	161 (80.5%)
	Never	23 (11.5%)
Why do you use herbal medications?	Lower price	21 (10.5%)
	Fewer side effects	82 (41%)
	Popular prescription	48 (24%)
	Previous successful experiences	112 (56%)
	Recommendation from a trusted person	49 (24.5%)
What kind of medication do you use in case of illness?	Synthetic medicine	25 (12.5%)
	Herbal medicine	18 (9%)
	Depending on the condition and severity of the disease	157 (78.5%)
Do you think that herbal medications are safe and have no serious side effects because they are from a natural source?	Yes	70 (35%)
	No	130 (65%)
What do you think about the action speed of herbal medications compared to synthetic medications?	Faster	30 (15%)
	Slower	131 (65.5%)
	Same	39 (16.5%)

This study aims to assess knowledge and awareness about herbal medications in Syria. The results showed that 69.5% of respondents reported having used herbal medicine before, with pharmacists being the most common source of information on herbal medicine (56%) and doctors being the second most common source (46.5%). Some participants also relied on the internet (39.5%) and friends and family (25.5%). 78.5% said they choose the type of medicine based on the condition and severity of the illness. Moreover, 65% believed that herbal medications are not safe, even though they come from natural sources. 65.5% felt that herbal medications act more slowly than synthetic ones. 19.5% said they are equally fast, and 15% believed they act faster.

Regarding who prescribes herbal remedies, 40.5% said they choose them on their own, 35% relied on a doctor, and 38.5% on a

pharmacist, while some mentioned consulting herbal specialists. Regarding actual use, 80.5% stated they use herbal medications occasionally, with the most common reason being previous successful experiences (56%), followed by the belief in fewer side effects.

Table III: Results of Participants' Knowledge about Herbal Medications

Questions	Options	Number of Participants (%)
What do you think about the effectiveness of herbal medications in treating chronic diseases?	Effective	57 (28.5%)
	Ineffective	45 (22.5%)
	I do not know	98 (49%)
Do you think that combining herbal and synthetic medications is better than using one type?	yes	88 (44%)
	No	51 (25.5%)
	I do not know	61 (30.5%)
Do you think herbal medications are an effective alternative to treat all diseases?	yes	30 (15%)
	No	133 (66.5%)
	I do not know	37 (18.5%)
What are the most critical factors that make you choose the type of medicine (herbal medicine / synthetic medicine)?	Effectiveness	102 (51%)
	Safety	91 (45.5%)
	Price	31 (15.5%)
	Availability	39 (19.5%)
	Medical Condition	115 (57.5%)
	Doctor's Opinion	78 (39%)
In which field do you prefer to use herbal medications?	Digestive	141 (70.5%)
	Urinary	34 (17%)
	Cardiac	18 (9%)
	Respiratory	88 (44%)
	Cosmetic	104 (52%)
Do you prefer to use herbal medications?	Externally (such as ointments/shampoos/creams...)	124 (62%)
	Internally (for internal systemic diseases)	76 (38%)
Who prescribes herbal medications for you?	From myself	81 (40.5%)
	Doctor	70 (35%)
	Pharmacist	77 (38.5%)
	Herbalist	39 (24.5%)
Which do you prefer?	Herbal medications	131 (65.5%)
	Synthetic medications	69 (34.5%)

Regarding chronic diseases, 49% are unsure about the effectiveness of herbal treatments, while 28.5% believe they are effective, and 22.5% think they are not. When it comes to combining herbal and synthetic medications, 44% consider it the best option, whereas 30.5% responded with "I don't know." When asked if herbal medicine is an effective alternative for treating all diseases, 66.5% answered no. The most influential factor in choosing a medicine was the nature of the illness (57.5%), followed by effectiveness and safety. The most common conditions for which herbal medications are preferred include digestive issues (70.5%), followed by cosmetic purposes (52%). Most participants favoured external use of herbal medicines (62%), such as creams or ointments. Finally, the survey revealed that 65.5% of participants prefer using herbal medications over synthetic ones, which accounted for 34.5%. This may be due to 56% having previous successful experiences, and 41% believe they have fewer side effects.

IV. DISCUSSION

This study aimed to evaluate knowledge and awareness of herbal versus synthetic medications. Analyzing the survey results revealed an underlying health issue. This issue may not be immediately obvious: dependence on herbal remedies without medical advice or sufficient awareness. Several participants reported using herbs as their first choice when feeling unwell, even before consulting a doctor or knowing the exact diagnosis. These results suggest a lack of understanding of the medical risks associated with the herbs. Relying on information from unscientific sources can worsen health problems or lead to adverse drug interactions if chemical and herbal medicines are used together without supervision. Therefore, the survey exposes a significant knowledge gap that needs to be addressed, either by increasing awareness or by integrating this knowledge into community health and medical training [57].

V. CONCLUSION

The results of this survey monitored the misuse of herbal medications and a lack of awareness regarding the potential dangers of improperly using certain herbs among Syrians. Therefore, a significant gap in knowledge of herbal drugs needs to be filled, either through increasing awareness or by incorporating this information into community health programs.

DECLARATION STATEMENT

After aggregating input from all authors, I must verify the accuracy of the following information as the article's author.

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