

## Patient Perceptions About Nutrition And Skin Health In City Of Makkah

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### Abstract

Consequently, many clinical studies have linked nutrition with skin physiology. It is doubtful whether such individuals who consult doctors practicing dermatology are aware of such research findings and are uncertain of the reliable source of such information. We talked about the patient's view concerning diet and skin care, such as the factors they think had negative or positive effects on their skin and the types of information they accessed from where

Methods: A questionnaire was distributed among the enrolled participants, which was 409 total, from people in the city of Mecca. This survey gave their views on the role of nutrition. The responses were classified as diseases.

Results and discussion: Of the 409 respondents, nearly 83% believed that diet impacts the health of their skin. No case of agreement differed more likely between the respondents with healthy skin and those with general skin diseases ( $P = 0.34$ ). The subjects reported that the information about skin diseases they found was more likely to have come from trustworthy sources, like medical professionals and scholarly literature ( $p=0.02$ ). Furthermore, a P-value of .002 showed that people whose opinions differed from opinion leaders tended to satisfy their information needs from reliable sources. Nevertheless, this occurrence of P-value 0.046 indicates that the relation is getting weaker when blogging is online.

Conclusions: All healthcare professionals must be updated about the changing online resources as more patients are conversant with the Internet. With our research, dermatologists can give nutrition advice that will be helpful to their patients.

**Keywords:** *The patient's view concerning diet and skin care*

## Introduction

Research suggests that the foods we eat can significantly affect our skin's health, good or bad. A diet high in green and yellow vegetables and low in saturated fats and carbs may help to promote a more youthful-looking complexion, according to several well-researched studies (Hai et al., 2021). Similarly, another study found an increased intake of vegetables, beans, and olive oil to protect against cutaneous actinic damage. On the other hand, eating more meat, dairy, and butter seems to be associated with skin damage. Many dermatological disorders have been studied in connection to nutrition. For example, research has shown a connection between foods often included in Western diets and acne vulgaris. Some of these are margarine, oils, bread, sugar, salt, nuts, eggs, and meat. Acne vulgaris has been related to deterioration in chocolate and dairy items. There is significant ambiguity in the literature regarding psoriasis. According to some research, treating psoriasis may benefit from consuming foods like fruit and olive oil with systemic anti-inflammatory qualities.

Conversely, it is advised to avoid substances that cause inflammation, such as gluten, soft drinks, and dietary fat. There is little research on rosacea, eczema, or seborrheic dermatitis (Fam et al., 2021). This information can be essential for individuals with common skin conditions or at a higher risk of developing them. Our study provides insights into the impact of diet on skin health, examining patients' perceptions of which meals are beneficial or detrimental to their skin.

Table 1(Hai et al., 2021)

	Agree		Disagree		Total	$\chi^2(1)$	P value
	N	%	N	%	N		
Healthy	159	84.57	29	15.43	188	0.907	0.3409
Skin Condition	179	81.00	42	19.00	221		
Acne	38	82.61	8	17.39	46	0.136	0.7127
Eczema	25	69.44	11	30.56	36	6.312	0.0120*
Psoriasis	31	72.09	12	27.91	43	5.130	0.0235*
Rosacea	9	81.82	2	18.18	11	0.064	0.8005
Seborrheic Dermatitis	13	81.25	3	18.75	16	0.135	0.7132
Other	86	84.31	16	15.69	102	0.005	0.9429

## Methods

During two months, data was collected from anonymous participants at the people of city of Makkah. The dermatologist Review Board has decided to exclude this anonymous poll. The research is based on a survey with 409 respondents (18 years and older) who took part in the study (Hai et al., 2021). Regretfully, there were no questions in the questionnaire that revealed the ages and genders of the participants, so we had no idea what their distribution was. The questionnaire would use open-ended questions to identify the products they considered suitable for or bad for their skin. Using the Likert scale sheds light on the level of agreement or disagreement with the sentence, "Healthy skin has a connection with nutrition" (Cao et al., 2020). On the Likert range, 1 means negation, and 2 reflects the affirmation.

On the other hand, the scale is used not only for evaluating the respondent's attitude towards the given statement, as 3 means a neutral position, 4 means he agrees, and 5 shows strong agreement. Chi-square independence was used to establish the data pool, with a confidence level 0.05. The values in the table compare the importance of a skin condition with the plain normative skin types demonstrated by the control group (Table 1). Regarding the 'Other' category, rare diseases were reviewed, including lichen sclerosis, pemphigus vulgaris, vitiligo, and skin cancers.

Table 2(Hai et al., 2021)

Table 2. Chi-square tests comparing information source versus skin condition and versus attitude.

	Reputable		Non-reputable		Total	$\chi^2(1)$	P value
	N	%	N	%	N		
Healthy	107	56.91	81	43.08	188	5.680	0.0172*
Skin Condition	151	68.33	70	31.67	221		
Agree	202	59.76	136	40.24	338	9.201	0.0024*
Disagree	56	78.87	15	21.13	71		
<b>Adjusted to include online blogs as reputable:</b>							
Agree	259	76.63	79	23.37	338	3.976	0.0462*
Disagree	62	87.32	9	12.68	71		

## Results

The results were exceeded by the chi-square analysis, taking into consideration the responses bought as "Agree" or "Completely agree." The categories "Remaining facts to the statement "Nutrition affects skin health" were put into the column Disagree" (Hai et al., 2021). A chi-square test was conducted to identify whether the attitude toward skin problems could affect the reliability of the information sources the patients referred to. Among these we mentioned, we grouped all others under "not reputational" and studied internet blogs concerning trustworthy sources separately. We identified valid sources, including medical and scientific journals. The question concerning the beneficial and detrimental influence of certain food products was freely discussed with the participants, who provided up to 4 items in each category (Hai et al., 2021). The following foods are sorted into 18 groups (see Table 3). There was one category of food that included similar ones.

For illustration, the category called "Fatty/fried foods" contains entries, among which are "chips," "fatty foods," and "fried foods." Finally, in accordance with the category distribution that was received, the answers for that category were counted (Idris & Maryam, 2021). Besides that, we split the responses into skin condition groups that may involve rosacea, eczema, seborrheic dermatitis, psoriasis, and acne vulgaris.

The poll survey has a total of 409 respondents. The great majority, that is, 83%, according to the survey, agreed that diet impacts skin wellness. There was no considerable difference between the two ages of the test group (without skin issues and with skin conditions), as shown in Table 1 (Hai et al., 2021). Likewise, nearly the same percent of the participants had the conviction as much as those who could distinguish the five and less common skin conditions. The classification included the following: acne vulgaris, rosacea, seborrheic dermatitis, and the last category, "other."

Among patients suffering from atopic dermatitis and psoriasis, as well as people with good skin, it was found that people with good skin agree

more with the idea that diet and skin have a relation than people with diseases. Upon analyzing the sources of information and skin conditions, it was found that disease sufferers were found to be more likely to browse the web for authentic resources of information about their body than people without disease (68% vs. 57%), as seen in the table below (P=0.0172) (Table 2) (Hai et al., 2021). Moreover, the same research found that a more significant proportion of people who disagreed (78%) wanted to get their knowledge from a reliable source compared to the ones who agreed (40%) (P=0.002419) (Hai et al., 2021).

This interaction took less significance (p=0.046162) when dentists and scientific publications were added to the list of reliable sources, alongside other sources such as blogs on the Internet. Water and fruits/vegetables were the first in patients' choice; water was selected 30% of the time, and fruits/vegetables 45% (Hai et al., 2021). These two diet groups scored the most positive association with skin health when compared in Table 3. Specifically, most people with acne, eczema, psoriasis, rosacea, and seborrheic dermatitis named fruits and vegetables as their products (Cao et al., 2020). Many people suffer from acne, eczema, psoriasis, rosacea, and seborrheic dermatitis; some with normal skin could identify water

Table 3(Hai et al., 2021)

Food Category	Skin Conditions											
	Acne (%)		Eczema (%)		Psoriasis (%)		Rosacea (%)		Seborrheic Dermatitis (%)		Percent of All Selections (%)	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
Soft drinks	--	4.44	--	8.33	--	16.28	--	9.09	--	12.50	--	6.88
Antioxidants	4.44	--	5.56	--	4.65	--	9.09	--	6.25	--	4.08	--
Caffeine	--	6.67	--	5.56	--	2.33	--	9.09	--	--	--	3.21
Dairy	--	31.11	--	8.33	--	11.63	--	9.09	6.25	6.25	0.51	11.01
Drugs	--	2.22	--	--	--	2.33	--	--	--	6.25	--	1.38
Eggs	--	--	--	2.78	--	--	--	--	--	--	--	0.46
Fatty, Fried	--	57.78	--	50.00	--	32.56	--	54.55	--	50.00	--	33.03
Fatty, Red Meat	2.22	8.89	--	2.78	--	9.30	--	27.27	--	12.50	0.51	6.42
Fruits, Vegetables	66.67	--	47.22	--	53.49	4.65	63.64	--	68.75	--	44.90	0.92
High-Glycemic	--	48.89	--	30.56	--	37.21	9.09	54.55	--	43.75	0.51	28.44
Lean, White Meat	4.44	--	2.78	--	4.65	--	18.18	--	31.25	--	--	--
Nuts, Soy	2.22	--	--	8.33	--	--	9.09	--	--	12.50	1.02	2.29
Probiotics	6.67	--	2.78	--	2.33	--	9.09	--	--	--	3.06	--
Shellfish	--	--	--	8.33	--	4.65	--	--	--	--	--	2.29
Spicy	--	11.11	--	2.78	--	2.33	--	--	--	--	--	3.21
Unsaturated Fats	8.89	--	11.11	--	11.63	--	9.09	--	12.50	--	8.16	--
Vitamins, Minerals	15.56	2.22	5.56	--	6.98	--	9.09	--	12.50	--	7.65	0.46
Water	40.00	--	38.89	--	41.86	--	18.18	--	37.50	--	29.59	--

While some discuss the effects of diet on the skin condition, others use its cosmetic benefits. For example, individuals who have acne, eczema, psoriasis, rosacea, and seborrheic dermatitis usually complain that fatty or fried foods and those with a high glycemic index damage their overall skin health. On average, people who have acne, eczema, psoriasis, rosacea, and other inflammatory chronic skin conditions reported that eating fried or greasy foods is the most significant triggering factor for their condition. This main hindrance was 33% of the selections that received the most shares (Hai et al., 2021). 28% of the patients reported a negative effect after consuming these foods. Thus, foods with a high glycemic index are the second most frequent problem from the patient's perspective. A sizable population of people battle with an assortment of skin disorders; acne, eczema, psoriasis, rosacea, and seborrheic dermatitis are all widespread. The data indicates that many people have specified these conditions in questionnaires.

## Discussion

Our study of patient perceptions matches the research done thus far. It can be observed from Table 3 that fruits and vegetables are a significant part of the skin regime for treating 5 different skin problems. Research has revealed that fruits and vegetables might be the most potent weapons against sun damage and skin aging. Besides, they might have some advantages for reducing inflammatory skin diseases (eczema, psoriasis, seborrheic dermatitis) (Paravina, 2018). Research says that different types of foods may hurt different skin disorders. For instance, foods that are deep fried, high in fat, and meals with a high glycemic index had the most severe influence. Several researches have revealed that such small meals could adversely impact skin health, like eczema, psoriasis, acne, and seborrheic dermatitis.

According to different studies, the consumption of dairy products has been categorically mentioned as one of the main contributors to this problem (contributing up to 31%). Similarly, psoriasis patients regard soft drinks as the

leading trigger (16%), and soft drinks even have a proinflammatory nature, according to the literature (Ahsan, 2021). Interestingly, a combination of the aforementioned dietary elements, including lean/white meat and vitamins/minerals, showed impressive results, such as a 31% reduction in seborrheic dermatitis, 18% for rosacea, and 16% for acne. The other problems, too, such as water, were common. Positive impact (18 to 42%) following consuming fruits and vegetables. Certain foods can have a negative effect on skin conditions like acne and rosacea. Spicy meals have been found to worsen acne, while fatty and red meat can aggravate rosacea. It's worth mentioning that coffee, soft drinks, and spicy meals have previously been associated with triggering rosacea. However, our data revealed that these associations were not as expected (9%, 9%, and 0%, respectively) (Ahsan, 2021). It is clear that scientific publications significantly impact public opinion and how patients perceive things. However, the data often conflicts in various research studies, and the extensive number of studies makes it difficult for the general public to form scientifically supported conclusions (Hai et al., 2021). Understandably, individuals would turn to easily digestible materials that may or may not be trustworthy sources of information.

It's worth mentioning that individuals who didn't believe in the connection between diet and skin health likely received information from credible sources. One hypothesis suggests that individuals with differing opinions from the majority tend to exhibit more skepticism and invest more time seeking credible sources (Fam et al., 2021). Moreover, regarding the correlation between diet and skin problems, much of the research lacks the definitive evidence that some internet bloggers claim. It's not surprising that there is a significant difference among individuals who seek advice from trustworthy sources regarding the effects of diet on skin health.

In addition, it was found that a higher percentage of patients (55% of physicians compared to 26% of internet blogs) seek medical advice for skin health concerns. However, recent studies reveal that individuals increasingly turn to the Internet

to gather information about their health (Cao et al., 2020). Only a fraction of the numerous online nutrition and skin health blogs provide reliable, verified information. The importance of the correlation between agree/disagree and information source diminished when we categorized all online blogs as trustworthy. While it is true that online blogs often discuss the connection between diet and skin health, it is essential to be cautious of less reliable sources that may exaggerate this relationship for the sake of attracting more traffic and attention. Furthermore, research has shown that skin diseases are more prevalent online (Hai et al., 2021). Take note that there is a significant disparity in the amount of information available on the Internet and social media regarding acne vulgaris compared to psoriasis or eczema. This could provide clarity for individuals who experience eczema, Psoriasis, and other conditions, attenuating the respondents' tendency to think that food does not affect healthy skin. Still, those who responded that diet affects healthy skin were likely to have acne vulgaris.

## Conclusion

Indeed, more research is needed for health professionals to be able to warn people about specific foods and minerals that they should restrict and make changes in doctors' practice. Furthermore, apart from implications in this particular topic, the research results and similar studies can indicate an overall trend in patient understanding, namely where the information originates from and why particular dietary choices are made (Paravina, 2018). Overcoming health perception misunderstanding paints a better picture, allowing medical personnel and individuals to have more rewarding conversations regarding nutrition. It also reduces the demand for counseling sessions and increases patient results. People have been knowledgeable about the nutritional benefits of eating fruits and vegetables since childhood and, at the same time, have been warned of the risks of having fried, greasy, and high-glycemic foods. Manifestly, the media and general

public's opinions are molded as a result of academic publications.

Yet, synthesized data usually contains several contradictory findings from other research, and there are many studies of low quality with small sample sizes within the literature. The scientific community is still struggling with creating a holistic approach to clarify which specific factors, such as dairy products and foods with high glycemic index, play a significant role in acne development (Hai et al., 2021). Awareness should be raised within the healthcare community that online information may not be accurate and can contaminate patients' vision. While waiting for their medical appointments, some patients can implement nutritional supplements or modify their diet routinely. As proper nutrition is vital to good skin health, it is of utmost importance to evaluate how patients feel about their skin. Besides, more research involving more people is required to comprehend the correlation between diet and skin health.

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