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# Herbal Dental Products: The Impact of Social Media on Consumers' Behaviour

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## Abstract

The increasing demand for having an attractive smile becomes one of the life essentials. Oral hygiene maintenance plays a key role in maintaining oral health (healthy teeth and gum) and as a result, having an attractive smile. Thus, using routine dental cleansing through brushing, flossing and mouth rinses is mandatory.

This study aims to evaluate the role played by social media on consumers' behaviour to use dental products manufactured essentially from herbal products rather than the well-known chemical formula. The analyzed data were collected by using a face-to-face approach (unstructured interviews). At first, dentists and pharmacists were asked about their opinion regarding using herbal products and their response to social media campaigns. Then, a random sample of the audience was interviewed.

Results showed that most of the Iraqi peoples are familiar with herbal products (68.6%) of them indicated social media has an impact on individuals.

The awareness of the importance of using toothpaste and mouth rinses made from herbal products can be increased through introducing their effectiveness, reduced side effect and their importance as green substrates...etc. This can be done by organized campaigns by a pharmaceutical company or nonprofit organization.

**Keywords:** Herbal, dental products, social media, behaviour, influencers.

## Introduction

Potent therapeutic agents may be developed from medicinal plants through its active substances<sup>(1)</sup>. Ancient civilizations have used plants to cure a variety of human ailments<sup>(2)</sup>. Nowadays, over 50% of the modern drugs industry focuses on natural products which play an important role in drug development<sup>(3,4)</sup>.

Many of these plants have dental care properties like *Azadirachta indica* (Neem), *Melaleuca alternifolia* (Tea Tree Oil), *Gritia Kumari* (Aloe Vera)... etc<sup>(5,6)</sup>

Historically, herbal products have been used as an oral hygiene maintenance routine. The chewing stick (Miswak or Siwak) is a tradition inherited from prophetic medicine<sup>(7)</sup>.

Furthermore, in Asia, Africa, the Middle East, and the Americas, for thousands of years, chewing sticks prepared from twigs, stems or roots of a variety of plant species have been practiced despite the widespread use of toothbrushes and toothpaste<sup>(8)</sup>.

As the side effect of allopathic medicines has increased, studying medicinal plants is also increased in different parts of the globe. Health professionals are often challenged to explore relevant information to advise their patients about using these over-the-counter products safely. The use of herbal extracts in various

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forms is entirely consistent with the primary health-care principles because these ingredients work more in harmony with the body instead of fighting against it as seen in other conventional versions of the same herbal products <sup>(9)</sup>.

Consumer behavior defined as a sequence of physical, mental and emotional activities done by humans during selecting, purchasing, using, deciding and disposing of goods and services to satisfy their needs <sup>(10)</sup>. Marketing campaigns can be considered as leading factors affecting consumer behavior which helps companies and nonprofit organizations to predict consumer personal preferences and purchasing power <sup>(11)</sup>.

Social media nowadays play an essential role in improving consumers' satisfaction starting with the initial stages of information search, alternative evaluation, purchase decisions and ending with changing consumers' opinions and interest <sup>(12)</sup>. Thus, understanding the impact of social media in clarifying the benefit of herbal dental products over the chemical formula will help in increasing awareness of the people about the importance of using these products. This knowledge may end with reducing side effects that came from chemical products and substantially saving more money.

## Methodology

**Study Design:** This study based on individuals' opinions obtained from face to face interviews with a random sample of dentists, pharmacists, and consumers to draw an image of their opinion about herbal dental products and to identify the role played by the advertising campaigns on social media to affect their purchasing behavior.

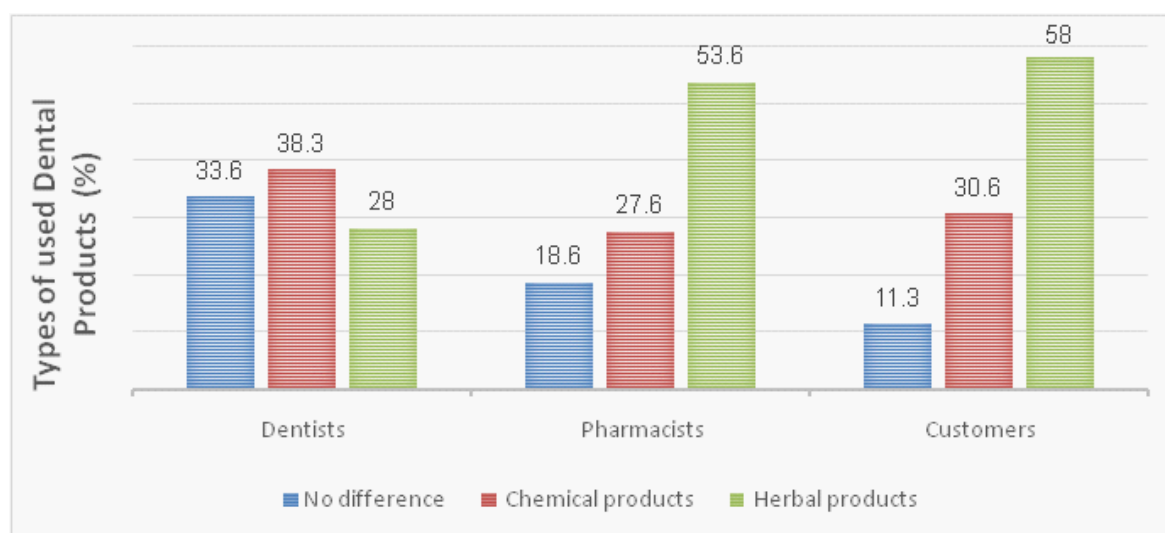
20 questions with 'yes' or 'no' closed-ended responses were designed and asked three hundred peoples; these questions were built based on literature review.

**Study Samples:** Face to face interview was conducted from February 2019 to May 2019 in Baghdad/Iraq at two stages; the first stage included 100 dentists and 100 pharmacists. While the second stage was with 100 consumers asking them about their opinion about herbal dental products.

## Results

Descriptive statistics were used to analyze the results of this study using Version 21, SPSS software.

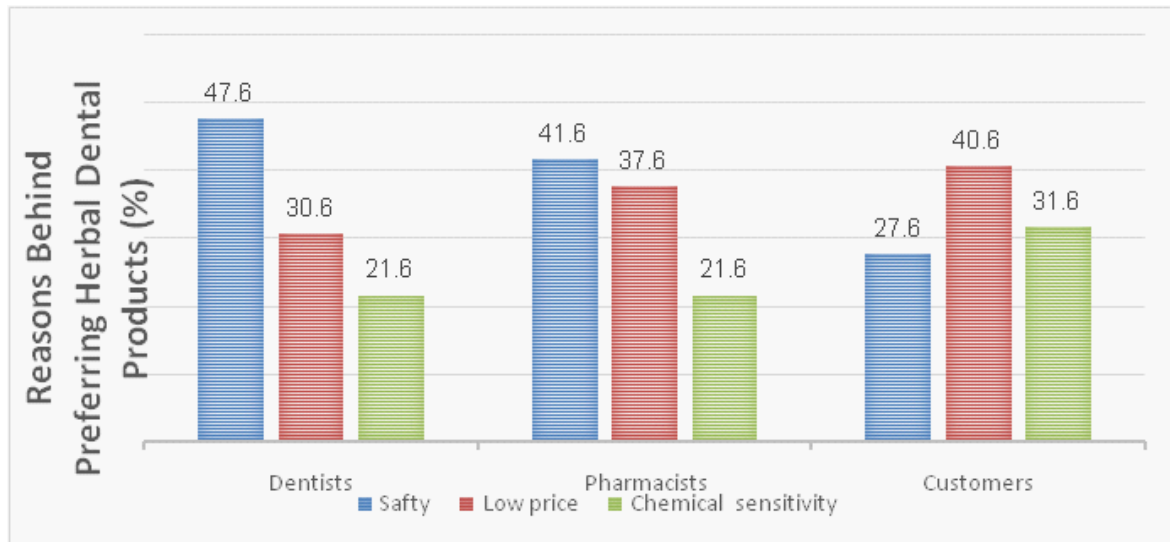
The chemical dental products show the highest rate of use among dentists (38.3%), while the herbal products used more by the other customers (58%) (Fig.1).



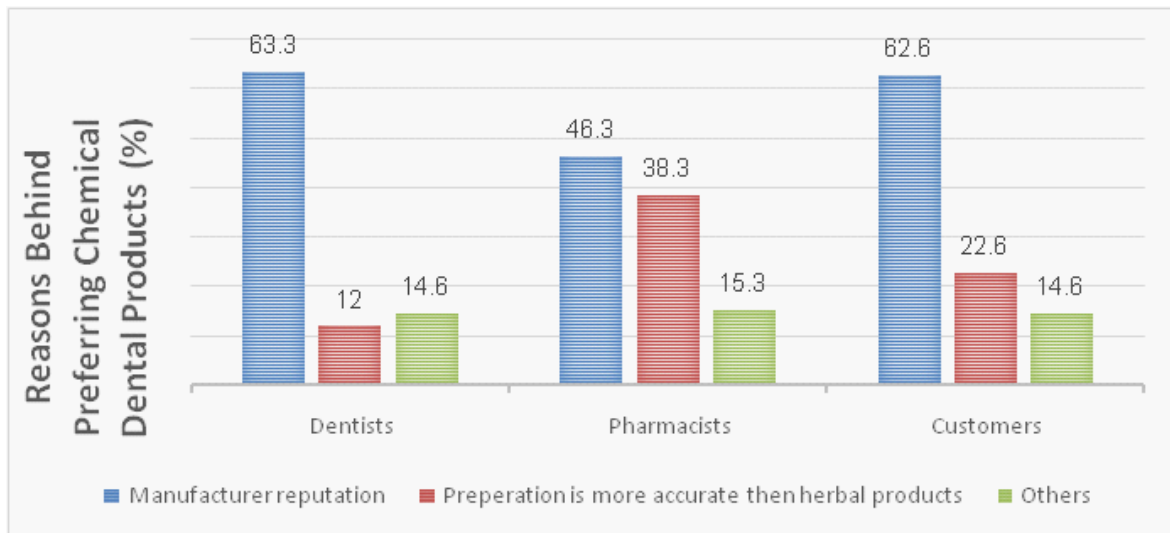
**Figure 1: Types of used dental products**

In (Fig. 2 and 3), reasons behind preferring herbal products over the chemical product and vice versa. Safety (47.6%) was the major reason behind using herbal dental

care by the dentists. Whereas manufacturer reputation (brand) (63.3%) reported being the reason behind using chemical dental care products.

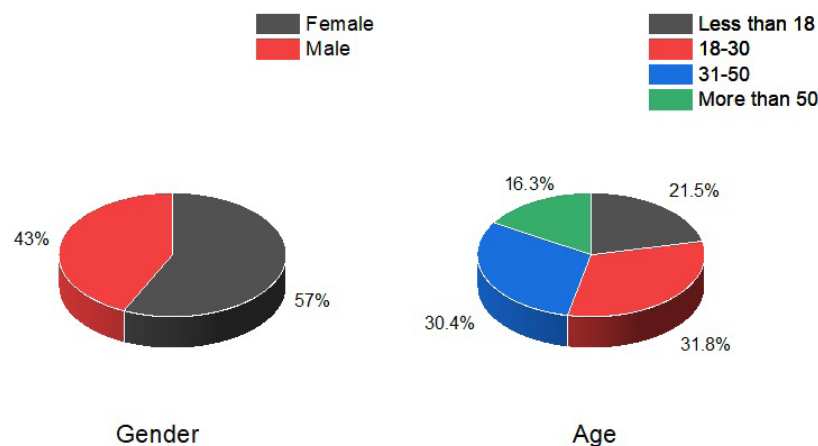


**Figure 2: Reasons behind preferring herbal dental products**



**Figure 3: Reasons behind preferring chemical dental products**

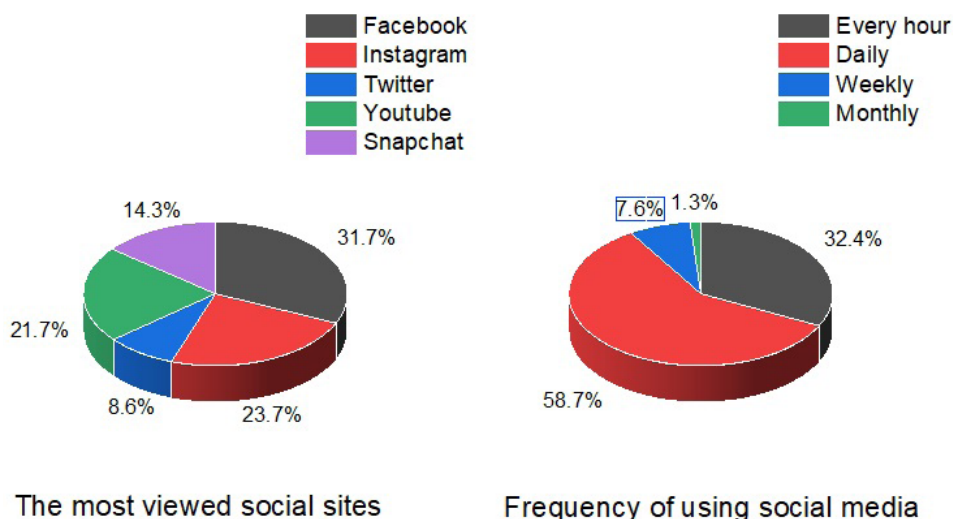
The majority of the sample were females (57%). The age of the majority of the sample was between 18-30 years old (28.6%) (Fig. 4).



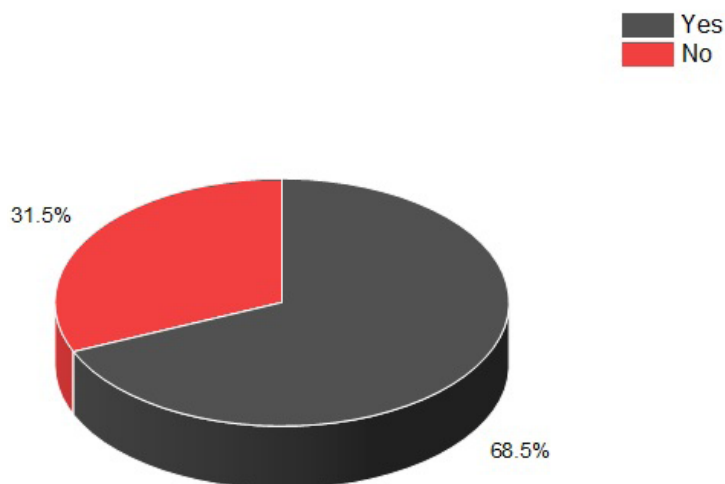
**Figure 4: Gender and age of the study sample**

Results reported that social messages via social media have played an essential role in changing the consumers' thoughts to use the herbal products by (68.6%) mostly via Facebook (31.6%) Where Twitter

reported to be the least social media visited by people in Baghdad-Iraq (8.6%). These social sites were viewed daily by the majority of the study sample (58.6%) (Fig.5 and 6).



**Figure 5: Most viewed social media and the frequency of usage**



**Figure 6: Social sites role in changing the consumers' thoughts to use herbal dental products**

## Discussion

As stated in the literature, medicinal herbs are a potential source of therapeutics aids in health systems all over the world in the diseased condition or as potential material for maintaining proper health. Therefore, the herbal product's popularity has increased<sup>(5)</sup>.

This research focused on understanding the general orientation of people in Baghdad-Iraq toward herbal dental products and the reasons behind these beliefs. The collected data from dentists, pharmacists, and other consumers reported that herbal dental products are

used frequently mainly because of its safety, low price and finally as a substitute to the chemical products as there is an idea that chemical compounds may be cause sensitivity. Furthermore, the data reveals a percentage of people that use both chemical and herbal products. While some peoples use the chemical formula as a result of the manufacturer's reputation. (Fig. 1,2 and 3)

Generally, women are more interested in their appearance then men, that is why most of the study sample were females between 18-30 years old(Fig. 4).

The second aspect of this study deals with the impact

of social media on consumers' behavior toward herbal dental products; therefore, the frequency of using social media and which media is most visited is important. Data regarding these questions revealed the majority of the study sample used social media on a daily basis. Facebook and Instagram reported being the most visited social sites (Fig. 5 and 6).

Recent studies mentioned social media as a vital tool for people between 18 to 40, as they enter young adulthood, focus on the future and aware of how others see them. They feel more pressure to be "the best", are more worried about what others think about them, and are more concerned about what making their family and friends proud, as known up to 91% of social media account are in this age group with the most social media connections. These groups are the most affected by social media's on their lives<sup>(13)</sup>.

### Conclusions

1. Herbal dental products used widely by peoples regardless of their levels of education.
2. Social media can direct the audience toward a specific product when used correctly towards the targeted audience via the proper social site.

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**Ethical Clearance:** Not required

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