



Herbs & Herbal Soap-A Review

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Abstract

Herbal soap is a natural alternative to conventional soap that is often crafted using botanical herbs and plant-based ingredients. The growing popularity of herbal soap can be attributed to its skin-friendly and environmentally conscious characteristics. Free from harsh chemicals and artificial fragrances, these soaps are particularly ideal for those with sensitive skin. Moreover, their use of natural ingredients makes them an eco-friendly choice, appealing to those seeking a more sustainable and gentle option for personal care. Herbal soap is also eco-friendly. Herbal soap is crafted with herbal ingredients that are biodegradable and do not harm the environment. Herbal soap is cruelty-free, as it does not contain any animal products or by-products, making it a compassionate and ethical choice for conscientious consumers. Herbs in herbal soap offer a range of benefits, including soothing and healing the skin, providing a natural fragrance, and reducing stress and anxiety through aromatherapy. The natural components found in herbal soap possess antibacterial, antifungal, and anti-inflammatory properties, which make them effective in addressing various skin conditions like acne, eczema, and psoriasis. Herbal soap comes in a wide range of scents and formulations, making it easy to find one that suits your individual needs. Commonly used herbs in herbal soap include lavender, chamomile, peppermint, rosemary, lemongrass, tea tree, calendula, oatmeal, aloe vera, clove, neem, turmeric, sage, and comfrey. Each herb offer distinct properties which is beneficial for the skin and overall health. With the growing concern over synthetic and chemical-laden products, herbal soap is becoming increasingly popular as a safe and eco-friendly choice for personal care.

Keywords: Herbal Soap; Herbs; Skin care; Mousterizing; Natural; Cleansing

INTRODUCTION

Soap is widely used cleansing agent well known to everyone[1]. soap is a combination of sodium salts of various naturally occurring fatty acids. When the fatty acid salt has potassium rather than sodium, it results in a gentle,softer lather [2]. The production of soap involves saponification of a triglyceride (fat or oil). In the process the triglyceride is reacted with a strong alkali such as; potassium or sodium hydroxide to produce glycerol and fatty acid salts[3]. The majority of individuals are unaware regarding the extended ramifications of using commercial soaps. According to Aiello., et al. (2007), commercial products contain certain substances that are deemed unhealthy and have the potential to cause harm to the body over time[4]. Most commercial soaps contain chemicals that can be harsh on the skin and using a natural herbal soap can be a better alternative. Herbal soaps are crafted using natural herbs and ingredients that are healthier and beneficial for the skin and are less likely to cause any damaging effect [2] . It has antibacterial, anti-aging, antioxidant, and antiseptic effects. Herbal soap contains none of the synthetic dyes, flavors, fluorides, or other additives typically found in commercial soap [5]. These herbs are rich in essential oils, vitamins, and minerals that provide numerous therapeutic benefits for the skin. Herbal soap is recognized for its soothing, rejuvenating, and healing properties, making a preferred choice for people with sensitive or dry skin. Certain herbs provide product natural colour which some provide reliving stress. some plants

contain an extensive array of essential vitamins and minerals that offer valuable benefits to human well being or health[7].



Fig:1

BENEFITS:

1. Cleansing and Detoxifying

Cleansing agent help remove dust, dead cells and dirt that chokes the pores on the skin. commonly used cleansers include vegetable oils like coconut, sesame and palm oil.

2. Soothing and calming:

Herbal soaps frequently include herbs and botanical extracts renowned for their soothing and calming attributes. Ingredients like chamomile, lavender, calendula, and aloe-vera can help alleviate skin irritation, redness, and inflammation, providing relief for conditions like eczema, psoriasis, or sunburn.[7]

1. Moisturizing:

The moisturizing helps the skin to become soft and supple. Moisturizing shows a healthy glow and are less prone to aging. Some of the herbal moisturizers include vegetable glycerin, sorbitol, rose water, jojoba oil, aloe vera and iris. These oils helps in forming a protective barrier preventing dryness, making the skin soft, supple, smooth and nourish. [8]

2. Anti-aging effects:

Numerous herbal soaps incorporate antioxidant-rich ingredients like green tea, rosemary, or turmeric, which effectively combat free radicals and diminish the signs.

3. Gentle and mild:

Herbal soaps are typically gentle and mild on the skin, making them suitable for individuals with sensitive skin. Herbal soaps present a healthier alternative to conventional soaps, as they are devoid of harsh chemicals, artificial fragrances, and synthetic additives that may lead to skin irritation.[7]

Commonly used Herbs in the making herbal soap:

Varieties of herbs are used in the making of herbal soap.

Neem:

Neem leaf extract mainly yields quercetin and betasitosterol as well as number of limonoids and many antimicrobial constituents. Neem oil with its natural anti-bacterial properties helps to deep cleanse the skin. Neem possesses antibacterial and antifungal properties, rendering it a highly effective herb for addressing skin infections.



Turmeric:

Turmeric's anti-inflammatory and antibacterial properties make it an excellent choice for individuals with acne-prone or inflamed skin. Turmeric's bioactive component is curcumin which is an excellent antiseptic agent [9].



Aloe vera:

Aloe extract is rich in anthraquinone glycosides and moisturizing and hydrating polysaccharides. It has shown excellent performance on skin diseases, wrinkles, marks and pigmentations. Aloe vera gel contains two hormones, macro and micronutrients, along with anthraquinones, which contribute to its wound healing and anti-inflammatory properties, making it effective in healing acne. Aloevera contains saponins, which are natural soapy substances known for their cleansing abilities and antiseptic properties [10]. Additionally, its moisturizing and soothing properties offer a cooling effect to the skin. It possesses moisturizing property[5].



Lavender:

Lavender renowned for its calming and soothing properties, is a favored herb commonly used in herbal soap formulations.



Rosemary:

With its natural astringent properties, rosemary plays a vital role in tightening and toning the skin. Additionally, its rich antioxidant content aids in safeguarding the skin from potential free Radical Damage.[10]



Peppermint:

This refreshing and invigorating herb is known for its ability to stimulate circulation and encourage the wellbeing of the skin.[11]



The requirements for the basic skin care

- a) Cleansing agent: It remove the dust, dead cells and dirt that clog the pores on the skin. Some of the common cleansers include vegetable oils like coconut, sesame and palm oil.
- b) Use of Toners: The toners help to tighten the skin and keep it from being exposed to many of the toxins that are suspended in the air or other environmental pollutants. Some of the herbs used as toners are witch hazel, geranium, sage, lemon, ivy, burdock and essential oils.
- c) Moisturizing: The moisturizers hydrate the skin making it soft, smooth and supple. Moisturizing shows a healthy glow and are less prone to aging. Some of the herbal moisturizers include vegetable glycerin, sorbitol, rose water, jojoba oil, aloe vera and iris. **TABLE-1** [12-18]



Figure 2

The herbal remedies used for special skin problems:

Table 1- Skin Types and Their Care

| SKIN TYPE | FEATURES | SUITABLE HERBS FOR SKIN |
|-------------|---|--|
| Normal | Has even tone, soft, smooth texture, no visible pores or blemishes and no greasy patches or flaky areas. Has a clear, fine textured, supple and smooth surface which is neither greasy nor dry. | Pomegranate leaves juice, Herbal Face Pack, Gingili Oil |
| Dry | Low level of sebum and prone to sensitivity. Has a parched look, feels "tight". Chapping and cracking are signs of extremely dry, dehydrated skin. | Aloe Vera, Olive Oil, Calendula Comfrey |
| Oily | Shiny, thick and dull colored. Chronically oily skin has coarse pores and pimples and other embarrassing blemishes. Prone to black heads. | Aloe Vera, Burdock Root, chamomile, Horsetail, Oat Straw, Thyme, Lavender, Lemon Grass, Licorice, Rose Buds, Witch Hazel, Cucumber, Cedar Wood |
| Combination | Some parts of your face are dry or flaky, while the center part of your face, nose, chin, and forehead (called the Tzone) is oily. Combination skin can also describe conditions where wrinkles and breakouts or rosacea and dry skin are present at the same time. | Witch Hazel, Menthol, Aloe Vera, Turmeric, Wheat Germ, Sweet Flag |

MATERIALS

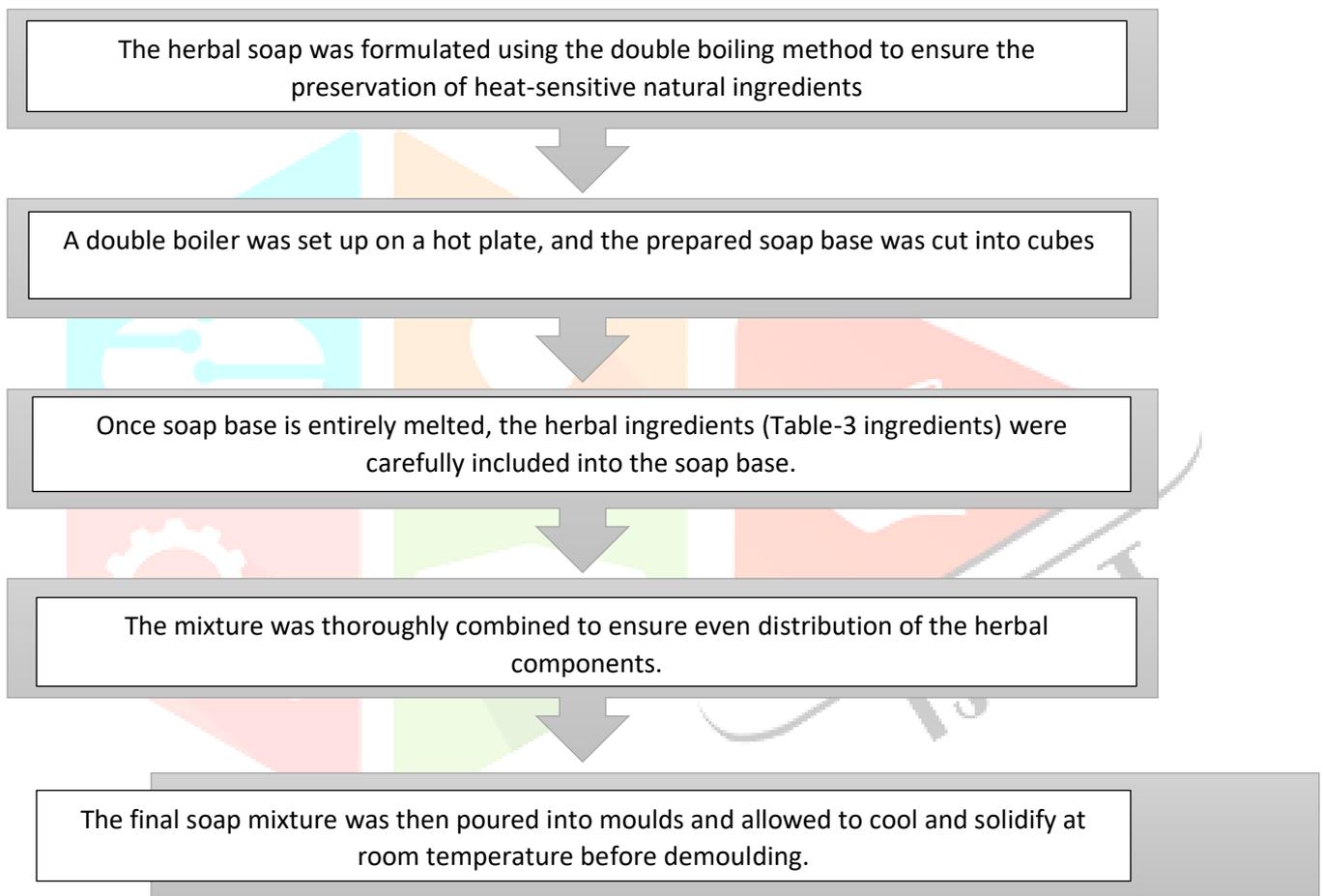
| | |
|--|----------------------------|
| Coconut oil, olive oil | -- Lather and moisturizing |
| Sodium Hydroxide, Alkyl benzene | --Detergent |
| Sodium Lauryl Sulphate, coco-glucoside | -- Foaming agent |
| Glycerin, Lactic acid, Aloe vera | --Humectant |
| Stearic acid, Sodium lactate | -- Hardening agent |
| Ethanol (KOH), NaOH | --solvent |

FORMULATION

Table 2

| Sno. | INGREDIENTS | USE |
|------|------------------------|---------------------|
| 1 | Tulsi powder | Anti- bacterial |
| 2 | Turmeric powder | Anti-septic |
| 3 | Aloe vera gel | Moisturizing agent |
| 4 | Almond oil | Vitamin source |
| 5 | Soap base | Base |
| 6 | Rose water | Reduce skin redness |
| 7 | Lavender essential oil | Perfuming agent |

PREPARATION OF HERBAL SOAP [19]



EVALUATION TEST:

The herbal soap formulated was evaluated by the various evaluation test

- **Organoleptic evaluation:**[20,21]
Colour: brown or Dark green
Odour: Aromatic
Appearance: Good
- **Physical evaluation:**
- **pH :-**
the pH was determined by using pH paper .the pH was found to be basic in nature

- **Foam retention:-**
25 ml of the one percent soap solution was taken into a 100 ml graduated measuring cylinder the cylinder was covered with hand and shaken 10 times . the volume of foam at 1 minutes interval for 4 minutes was recorded . it was found to be 5 minutes . Standered Foam height : 10 cm d)
- **Antimicrobial test :-**
there was various study conducted on antimicrobial activity of neem and hence according to research paper by antimicrobial activity of Azadiricta indica leaf, bark and seed extract.[22,23]
- **Stability Testing:-**
Accelerated stability testing was conducted by storing samples at $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ and $75\% \pm 5\%$ relative humidity for a period of 3 months. Organoleptic properties, pH, and physical characteristics were evaluated at 0, 1, 2, and 3 months to assess the soap's stability over time and under stress conditions.[19]

LIMITATIONS:

- **Variable Quality:** Herbal soaps are available in a wide range of formulations, and the quality may vary. Some herbal soaps may contain lower-quality ingredients or lack the desired efficacy, which can affect their performance.
- **Shorter Shelf Life:** Herbal soaps may have a shorter shelf life compared to synthetic soaps, as they do not typically contain preservatives. This means that they may spoil or become less effective over time.
- **Higher Cost:** Herbal soaps may be more expensive compared to synthetic soaps, as they often contain higher quality natural ingredients. This can make them less affordable for some consume[24].

Current Scenario of Herbal Soap



During the 2021-2022 period, the global market for herbal Soap was valued at approximately USD 181.31 million, and it is projected to grow at a compound annual growth rate (CAGR) of 5.9% throughout the forecast period, ultimately reaching and estimated value of USD 255.7 million by 2030. Global export market share on herbal drugs of India is currently less than 0.5% (Jain. 2019).

Herbal soap finds widespread usage in hospitals and clinics for variety purposes including handwashing, patient bathing, and general cleaning. The skin-friendly nature ensures that it is gentle on the skin,as it is less likely to cause irritation or allergic reactions compared to harsh chemical-based soaps. Additionally, the nature, the refreshing scent often found in herbal soaps aids in promoting relaxation of the mind and body.[7].

CONCLUSION

Herbal soap is natural, chemical-free alternative crafted from plant-based ingredients that cleanse, nourish, and soothe the skin. Enriched with natural fragrances and healing properties, it is perfect for sensitive skin and can help with conditions like eczema and psoriasis.

As people increasingly shift away from synthetic products, herbal soap is becoming more popular for its gentle, eco-friendly, and skin-loving benefits. Crafted with simple ingredients and processes, it offers a safe and effective way to care for your skin while minimizing exposure to harsh chemicals.

Opting for herbal soap means selecting a healthier, more sustainable option for skincare. Its natural ingredients not only cleanse but also promote relaxation, enhance complexion, and support overall well-being.

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