



“Formulation and evaluation of herbal soap”

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Abstract:

Everyone is familiar with herbal neem soap as a cleaning agent. Soap is defined differently by many authors. It is recognized as any cleaning agent that is produced as granules, bars, flaks, or liquids that is created by reacting sodium or potassium salt with different fatty acids. That are naturally occurring (non-volatile fatty acid salt).The plant known as herbal neem (*Azadirachta indica*) has inspired Worldwide prominence due to its many therapeutic benefits, neem leaves and its components Shown anti-inflammatory, antihyperglycemic, antiulcer, antimalarial, and antifungal properties. Anticarcinogenic, antimutagenic, and antibacterial qualities.

- **Keywords:**

hand sanitizer, antimicrobial, and polyherbal soap

- **Introduction:**

A coherent account regarding the origins of cosmetics emerged as they developed over the course of mortal history. Man used color as ornamentation to entice the prey he wished to kill during the Neolithic period (3000 BC). He also decorated his body and colored his skin to frighten the enemy (whether it a man or a beast) and protect himself from attacks. (1) Cosmetics are defined as anything that is intended to be rubbed, poured, sprinkled, scattered, introduced into, or otherwise applied to the mortal body or any portion of it for the purposes of cleaning, beautifying, enhancing attractiveness, or altering appearance under the Medicines and Cosmetics Act. The body's most delicate organ is the skin. Protecting the body's organs and collecting sensitive information from the environment, it acts as a hedge. Moreover, it helps maintain a healthy body temperature too. There are various unique cells and structures that can form in the skin. The outermost three layers are the dermis, epidermis, and hypodermis. The way the skin functions as a whole is influenced differently by each subcaste (2) Topically, the plant's leaves are used to treat a variety of skin conditions, including ringworm, eczema, and pruritus, as antibacterial and anti-inflammatory agents (3). Natural or synthetic bioactive ingredients are added to the soap base to give the finished product a variety of biological activities, which is how medicinal soaps differ from regular soaps. In addition, these soaps contain a combination of essential oils, vitamin E, aloe, and super-fatty oils (4–

8). Because it contains saponin, Reetha is an exceptional cleanser that is ideal for both face and skin care (9) and is highly recommended for overall health and skin well-being. It is beneficial for sensitive skin as well. When chickpeas and Reetha are combined, the skin feels nourished and soft. Effort particles, maintaining the skin's moisture content and freshness. Additionally, reetha helps treat psoriasis and eczema by keeping the skin supple and soft and preventing drying out. (10)

- **Herbal Soap:**

We all know soap to be a common cleaning agent. Several authors have given different definitions of soap, considering it to be any cleaning agent that is produced in the form of granules, bars, flakes, or liquid and is made by reacting salts of sodium or potassium with different natural fatty acids (salt of non-volatile fatty acids). Any salt of fatty acids with eight or more carbon atoms that dissolves in water can also be referred to as soap. Soaps are manufactured for a number of uses, including bathing, washing, and medication. Because of the negative ions on the hydrocarbon chain that are connected to the carboxylic group of the fatty acids, the soap has a cleansing effect.

- **Skin type:**

1. Normal Skin: Balanced—not too oily or dry, with few imperfections and barely visible pores.
2. Oily Skin: Produces excess sebum, leading to a shiny appearance, enlarged pores, and a tendency to develop acne or blackheads.
3. Dry Skin: Produces less oil than normal, often feeling tight, flaky, or rough. It may look dull and be more prone to irritation.
4. Combination Skin: Features both oily and dry areas—commonly an oily T-zone (forehead, nose, chin) and dry cheeks.
5. Sensitive Skin: Easily irritated by products or environmental factors. It may sting, burn, or turn red easily.
6. Acne-prone skin: frequent breakouts, blackheads and inflammation

- **Introductory skin care**

- Cleaning agent that clears the skin's pores of dust, dead cells, and debris. Cleaners that are frequently used include vegetable canvases, such as coconut oil. The skin becomes more supple and smooth when it is moisturized.
- Moisturizing, they exhibit a less healthy sheen and are less likely to age. Some herbal moisturizers include aloe vera, rose waters, and glycerin sorbitol.

Content of the soap:**Neem:**

- **Common name-** Indian Lilac
- **Botanical name-** Azadirachta indica
- **Colour leaves-** brark green, flower white fruits yellowish green.
- **Chemical constituents-** flavonoids, tannins Nimbin Salannin
- **Pharmacological action-** Antioxidant, Anti-Microbial Antibacterial: Antiviral Insecticidal

Aloe Vera:

- **Common name-** Aloe barbadensis
- **Botanical name-** Abe barbadensis miller
- **Colour-**leaf-Green Gel - Colourless
- **Chemical constituents-**Polysaccharides vit (A,C,E,B12)
- **Pharmacological action-**Antioxidant, moisturizing,

Turmeric



- **Common name-** curcuma longa
- **Botanical name-**Curcuma longa
- **Colour-** Rhizome yellow- orange Powder Bright yellow
- **Chemical constituent** - curcumin (Antioxidant) volatiles oil Resin flavonoids
- **Pharmacological action-** Anti-Inflammatory Anti-cancer,anti- diabetic

Ritha



- **Common name** - Sapindus

- **Botanical name** -mukorossi Colour- Bark light brown.
- **Chemical constituent** - Alkaloids, flavonoids Tannins, Glycosides
- **Pharmacological action**- Antioxidant Antidiabetic Neuroprotective, Cardioprotective

Vitamin E



- **Common name** - Alpha tocopherol
- **Botanical name**-tocopherol
- **Colour**- oil yellowish or brownish Powder - yellow or beige
- **chemical constituent** vitamin E acetate vitamin E succinate.
- **Pharmacological action**- Skin protective, antioxidant

Geranium Essential Oil



- **Common name** Geranium essential oil
- **Botanical name** palargonium graveolens L'Her Colour-Oil-pole yellow to greenish yellow
- **leaves** Greenrich Journal
- **Chemical constituent**-Eugenol Limonene, citronellol, Geraniol
- **Pharmacological action**.- insecticidal Antifungal, Antimicrobial
- **Advantages of herbal**

Hypoallergenic Herbal detergents often have a lower likelihood of causing anti-inflammatory reactions than other detergents. Synthetic detergents that might include artificial spices and harsh chemicals

- **Disadvantages of herbal**

Because they often contain high-quality natural ingredients, herbal detergents may be more expensive than synthetic ones, which may make them unaffordable for some customers, particularly those on a limited budget.

- **Needs and objectives:**

- **Need:**

1. If you're asking for ingredients (to make herbal soap): Basic ingredients typically include: Base oils (e.g., coconut oil, olive oil, palm oil) Lye (sodium hydroxide for bar soap)
2. Herbs or herbal powders (like neem, turmeric, chamomile, lavender) Essential oils (for fragrance and skin benefits) Distilled water

3. If you're asking about the benefits or "needs" herbal soap addresses:

4. Herbal soap is used for: Treating acne and skin infections Soothing inflammation or irritation Providing a natural fragrance without synthetic chemicals Gently cleansing and moisturizing sensitive skin Supporting eco-friendly and chemical-free lifestyles Which one would you like more details on—soap making or soap benefits

5. Natural Ingredients Many people prefer products made with plant-based or organic ingredients like neem, turmeric, aloe vera, or tea tree.

- **Objectives :**

1. To promote healing the skin, natural fragrance, and smoothing.
2. To produce soap that can be used on both hard and soft water.
3. The primary objective is to create a handwash that minimizes potential side effects while providing thorough cleaning of hands.
4. As a cleaning agent, solubilizes particles and grime.
5. The aim is to complete the reaction, which generates its own heat, without any free alkali being left in the soap.
6. To make it easier to remove grease, bacteria and other contaminants from the skin.
7. The objective portion of the SOAP Note includes unbiased, factual information from the patient's visit.

- **Plane of work**

1. Literature review and data collection

To gather and review existing literature on Nelly to inform the review's content

2. Stocuring and outlining the review:

To organize the review into clear, logical sections for case of writing and readability

1. Writing the review

To write the review based on the gathered data and structured outline

4. Review and editing

To ensure the quality, accuracy, and clarity of the review before final submission

5. Submission and Dissemination

- **Literature survey**

SR	Author name	Year of publication	Tital	Abstract
1	Renu Solanki	2011	Treatment of skin diseases through medicinal plants in different regions of the world	Skin, the largest organ of the human body is a vital component of human health. Skin diseases are numerous and a frequently occurring health problem.
2	Sunhyo Ryu 1, Peter I Song 2, Chang Ho Seo	2014	Skin, the largest organ of the human body is a	Staphylococcus aureus (S. aureus) is a

	3, Hyeonsook Cheong 1, Yoonkyung Park 1,*		vital component of human health. Skin diseases are numerous and a frequently occurring health problem.	widespread cutaneous pathogen responsible for the great majority of bacterial skin infections in humans.
3		2010	Repellency against head lice (Pediculus humanus capitis	The head louse problem increases at all levels of the international societies due to activities or life conditions that lead to often hair contacts among people.
4	Shail K Chaube 1,✉, Tulsidas G Shrivastav 2, Meenakshi Tiwari 1, Shilpa Prasad 1, Anima Tripathi 1, Ajai K Pandey 3	2014	Neem (Azadirachta indica L.) leaf extract deteriorates oocyte quality by inducing ROS-mediated apoptosis in mammals	Neem (Azadirachta indica L.) leaf has been widely used in ayurvedic system of medicine for fertility regulation for a long time. The molecular mechanism by which neem leaf regulates female fertility remains poorly understood.
5	Marta Klimek-Szczykutowicz, A. Szopa, H. Ekiert	2020	Citrus limon (Lemon) Phenomenon—A Review of the Chemistry, Pharmacological	Pharmacological Properties, Applications in the Modern Pharmaceutical, Food, and

			Properties, Applications in the Modern Pharmaceutical, Food, and Cosmetics Industries, and Biotechnological Studies	Cosmetics Industries, and Biotechnological Studies
6	Ayush. S. Dhatrak, Suyog. B. Falke, Sonali. P. Bhagwat	2023	Formulation, Development & Evaluation of Polyherbal soap	Any substance's antimicrobial activity is described as its capacity to either eradicate or prevent the growth of bacteria.

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