



**INTERNATIONAL JOURNAL OF NOVEL RESEARCH
AND DEVELOPMENT (IJNRD) | IJNRD.ORG**
An International Open Access, Peer-reviewed, Refereed Journal

FORMULATION AND EVALUATION OF FACIAL HERBAL SCRUB BY USING SESAME SEEDS

SHOEB AKHTAR*, SHIVANI SAINI, DR. S.M. PATIL

Student B. Pharm IV Year, Shree Dev Bhoomi Institute of Education Science & Technology Dehradun
Uttarakhand, India

Associate Professor, Shree Dev Bhoomi Institute of Education Science & Technology Dehradun
Uttarakhand, India

Director, Shree Dev Bhoomi Institute of Education Science & Technology Dehradun
Uttarakhand, India

ABSTRACT

OBJECTIVE: To formulate and evaluate facial herbal scrub by using sesame seeds.

METHODS: The scrub was prepared by using the that is sesame seeds powder, rice powder, orange peel powder, turmeric, tulsi powder, rose water, vitamin E oil, glycerin. The scrub was prepared by homogenous mixing of all the excipients together. We have develop three batches of our herbal facial scrub, namely F1, F2 and F3. All of the batches were assessed based on various factors, including viscosity, pH, and appearance.

RESULT: All the three formulations F1, F2 and F3 showed good appearance, PH, adequate viscosity, was observed. Additionally, during the irritancy study, the formulations F1, F2, and F3 did not cause redness, erythema, or irritation, and they were simple to wash. All the three formulations F1, F2, F3 were stable at room temperature.

CONCLUSION: All the herbal ingredients showed significant different activities. Based on the results, we can suggest that all three formulations F1, F2, and F3 were stable and can be safely used on the skin. But when used are applied three formulation we are observed F1 formulations are give better result then other two formulations F2 and F3. F1 formulation appearance, texture, spread ability, washability are good then F2 and F3 formulation.

Key words: facial herbal scrub, antioxidant, antibacterial, anti-inflammatory, sesame seeds, orange peels powder, rice powder, tulsi powder, Multipurpose scrub.

INTRODUCTION

The Greek term "kosmtikos," which means to have authority, order, or ability in decorating, is where the English word "cosmetic" originates. As they were developed, the history of man is a continuous tale of the development of beauty care products. The man in 3000 BC used colour for enrichment and to entice (1-3). The man survived attacks from the same monsters that he wanted to pursue by colouring his skin and adorning his body for protection to make an opponent dread him (whether man or animal). Cosmetic goods are created using herbs with skin-beneficial properties. Extracts obtained using a variety of techniques are used to make herbal cosmetics. To get the clear aesthetic benefits, herbal active phytochemicals are added to the products (4-6). A significant arrangement of unending skin health management perfection may be found in the writing, unani, clinical, and medical equipment. A spice should contain properties such as those that are anti-oxidant, relaxing, germicide, emollient, anti-seborrheic, anti-karyolytic, and anti-microorganism. The term "cleaning agent" is frequently used to describe the face wash. Face washes and cleansers clean the face of oil, grime, and pollution. Cleansers are substances that remove excess oil, makeup, and dirt from your skin. Individuals' skin and hair beauty are influenced by their health, lifestyle, regular jobs, climatic conditions, and upkeep (7-8). Pre-Christian Hellenistic era, when historians first made note of the use of plant ingredients in fragrances and cosmetics. Aloe vera gel was a skin treatment lotion utilised by Queen Cleopatra, a symbol for the pinnacle of cosmetics and beauty. Pliny the Elder (A.D. 23–79), who

wrote the encyclopaedia "Natural History," contained an intriguing section on fragrances and odour-producing chemicals. In the 16th century, Cornelius Celsus, a Roman physician who lived from B.C. 7 to A.D. 53, talked on the state of skin cleanser. (9-10) Natural cosmetics and herbal cosmetics both have similar definitions. Herbal cosmetics are described as products that have been created using a variety of legal cosmetic ingredients as the base and one or more herbal ingredients to deliver specific cosmetic benefits solely. The natural components of botanicals have no negative effects on human health; instead, they provide the body with nutrients and other beneficial minerals. (11) Because they can function as both cosmetics and medications, herbal cosmetics are in high demand nowadays. Skin care products are a crucial component in boosting people's confidence.

Historically, it was believed that women bought more skin care products than men did, but today

Situation Men are equally concerned with their appearance.[12] This idea of beauty, attractiveness, and appearance causes a surge in this industry. Because men's skin is texture of the customer's skin.[13]

There are many different sorts of cosmetics, and each one affects the skin in a different way. Skin attributable to a number of factors and these can be successfully treated with the application of scrubs. Two different types of scrubs are used on the skin, including face body scrub and scrub. The only difference between these two is how much sugar and oil are put to each. Face scrub uses a lot of oil, which makes it less abrasive It removes dead skin cells from the skin and exfoliates it. Scrub can be applied to any skin type. Only the essential oil utilised as an ingredient in the scrub will change depending on the kind of skin. Skin is divided into three categories, including such as sensitive skin, dry skin, and oily skin.[14] Regular usage of scrubs reveals new skin cells and leaves skin shining and smoother since dead skin cells are removed. One of the essential components in the creation of facial scrubs is a mild abrasive agent. Scrubs can either be applied directly to the skin or with a little cosmetic pad. It is advised to use a gentle motion when applying the scrub gel, which helps to boost oxygen supply to the skin's surface and promote blood circulation.[15]

Ideal Scrub Characteristics It is accepted that a perfect scrub has the following qualities:[16]

- It should be Non toxic
- Possess small gritty particles
- Mild abrasive
- Non irritating
- Non sticky Able to remove dead skin cell

Advantages:

1. Rejuvenation of the skin
2. Deals with flaky skin
3. Removes dead skin
4. Imparts glow to the skin
5. Removes scar

Disadvantage:

Chemicals and hard-scrubbing motions may irritate the skin and result in redness and inflammation People with delicate skin may experience allergic reactions to the ingredients in synthetic scrubs. Excessive cleaning can leave pores open, exposing skin to both UV radiation and debris. Your skin becomes more vulnerable to infections and tanning as a result.

USES OF SCRUB:

- Exfoliates death skin cell.
- Improve the overall texture.
- Prevents future breakouts.
- Fades away mark.
- Prevents ageing.

MATERIALS USED:

All the materials used in this preparation were purchased from local market and botanical garden.




| Common name | Part used | Figure |
|-------------|--------------------|---|
| Sesame | Seeds powder |  |
| Rice | Rice powder |  |
| Turmeric | Turmeric powder |  |
| Orange peel | Orange peel powder |  |
| Tulsi | Tulsi powder |  |

Table 1

1.SESAME SEEDS

SYNONYMS -Sesamum indicum

FAMILY - Pedaliaceae.

GENUS -Sesamum

BIOLOGICAL SOURCES - Native to Sub-Saharan Africa and of Indian origin.

Sesame plants is often called as QUEEN OF OIL SEEDS.

Sesame seeds are used in a variety of methods to promote healthy skin, including as a cleanser, moisturiser, sunblock, anti-aging agents, and acne treatments. Sesame seeds offer an instant glow to their naturals while healing dry skin damage. face exfoliants It is renowned for its restorative qualities and for preventing dry, rough skin. Minerals including calcium, magnesium, zinc, iron, and phosphorous are found in vitamin B and vitamin E-rich foods. It is perfect for using skin hair for external purposes.

RICE

SYNONYMS – Grain

FAMILY – Poacean

SPECIES – O.Sativa

KINGDOM- Plantae

ORDER- Poales

Rice flour benefits for skin include being a superb exfoliator in addition to its anti-aging and skin-brightening characteristics. The small particles of crushed rice help scrub away dead skin cells without being too harsh on the skin. This rice absorbs extra oil and is also used to treat acne.

in order to effectively cleanse and exfoliate skin without irritating it. used in organic scrubs

3.TURMERIC POWDER

SYNONYM–Cardamon.

BIOLOGICAL SOURCES- Cardamon

A common condiment and colouring ingredient is turmeric. Other names for it include "golden spice" and "yellow root." The anti-inflammatory properties of turmeric are demonstrated in a disappearing cream base made with sandalwood and turmeric. Usually, turmeric is combined with water or honey to a It is applied straight to the skin and has a pasty consistency.[17,18,19]

4.Orange peel (*Citrus sinensis*) The citrus fruit orange provides a variety of nutrients, including calcium, potassium, magnesium, and vitamin C. It guards against oxidative stress, skin dehydration, and free radical damage. Additionally, it prevents wrinkles, ageing, acne, and blemishes and has an instant glow quality.[20]

5.TULSI LEAVES

KINGDOM – Plantae

ORDER – Lamiales

GENUS – *Ocimum*

SPECIES – *O. Tenuiflorum*

The QUEEN OF HERBS is TULSI. It is quite good at shielding our bodies from infection by bacteria or fungi on the face or body. Tulsi is a miracle worker when it comes to killing acne-causing bacteria and cleaning the pores. Additionally, basil leaves are advantageous for cleansing blood, which aids in the treatment of acne and other skin problems. Tulsi also helps with dull spots, black spots, and the battle against ageing. Lightening the skin, reducing hyperpigmentation, and enhancing skin tone.

ROSE WATER:

Rose water is used for a variety of things, including calming skin irritability, soothing sore throats, reducing skin redness, assisting in the prevention and treatment of infections, containing antioxidants, enhancing mood, calming headaches, and soothing stomach issues.[21]

GLYCERIN:

According to reports, glycerin serves as a denaturant, fragrance component, hair conditioner, humectant, oral care agent, oral health-care medicine, skin protectant, skin conditioner—humectant, and viscosity-decreasing agent in cosmetics.[22]

Vitamin E Oil:

Vitamin E oil may have various benefits for the skin, especially in people with dry or itchy skin, and eczema. It may also prevent wrinkles, heal, wounds, and make scars less visible.

Vitamin E oil is obtained from vitamin E and can be used topically or as an ingredient in creams, lotions, and gels.. Vitamin E is a group of fat-soluble vitamins effect. Antioxidants fight free radicals which are electrons that have been linked to a wide range of health conditions, from cancer to premature aging.

Many supporters of vitamin E oil argue that it is potent antioxidant, but research on its benefits is mixed.

MATERIAL AND METHODS:**METHODS OF COLLECTION OF CRUDES DRUGS:****1. Collection of Sesame seeds**

We gathered sesame seeds from the botanical garden. These seeds were given a two-day soak in water before being crushed and put through a sieve

2)Collection of Rice powder

After being soaked in water for two to three days, the rice was crushed, squeezed, and passed through sieve number 60.

3)Collection of tulsi leaves Powder

We gathered fresh tulsi leaves from the botanical gardens. They took three to five days to dry out in the shade. then carefully ground to create powder Flow through sieve number.60

4)Collection of orange peel powder

- 1.peel your oranges and reserve the skins.
2. Dehydrate the orange peels in the sun or alternatively in a dehydrator for up to 24 hours.
- 3.Place the dehydrate orange peels in blender and combine until they become a fine powder.
- 4.Store in the fridge until you are ready to use.
- 5.Others ingredients like turmeric , vitamin E oil were collected from local market.

Sesame powder 10gm, rice powder 10gm, orange peel powder 5gm, tulsi powder 5gm, turmeric powder 5gm, mix all the ingredients in Rose water

Add measured quantity of powdered herbs in its vitamin E oil as a preservatives and also add glycerin by drop wise..

All the ingredients were mixed vigorously using spatula for 40-60 mins.

Preparation of herbal facial scrub

For the preparation of herbal scrub , I have selected important ingredients such as Sesame seeds ,Turmeric, Rice powder, Orange peel powder, Tulsi, Rose water were collected from local market and other botanical garden.

We have to take each ingredients and convert in to the fine powder .The conversion of fine powder is done by the help of grinder .With the help of sieves we have to separate out the particles of the same size each herbal ingredients.

RESULT AND DISCUSSION:**Physical observation**

The scrub was observed for the color, order,texture

| S.N | Parameter | F1 | F2 | F3 |
|-----|-----------|-----------------|-----------------|-----------------|
| 1 | Color | Yellowish Green | Yellowish Green | Yellowish Green |
| 2 | Order | Pleasant | Pleasant | Pleasant |
| 3 | Texture | Gritty | Gritty | Gritty |

Table:-2 Physical observation

Wash-ability observation

The scrub was applied on the hand and observed under the running are observed as

| SN | Formulation | Wash-ability |
|----|-------------|-----------------|
| 01 | F1 | Easily Washable |
| 02 | F2 | Easily Washable |
| 03 | F3 | Easily Washable |

Table:-3 Wash-ability observation

Ph observation

The pH meter was calibrated using standard buffer solution. About 0.5gm of cream was weighed and dissolved in 50ml of distilled water and its PH was measured using digital PH meter its result as listed below

| SN | Formulation | Ph |
|----|-------------|-----|
| 01 | F1 | 6 |
| 02 | F2 | 7 |
| 03 | F3 | 7.2 |

Table:-4 Ph observation

Spread ability observation

The spreadability test observed as

| SN | Formulation | Spread ability |
|----|-------------|-------------------|
| 01 | F1 | Easily spreadable |
| 02 | F2 | Easily spreadable |
| 03 | F3 | Easily spreadable |

Table:-5 Spread ability observation

Irritability observation

Through the visual assessment and test, Irritability was observed as

| SN | Formulation | Irritability |
|----|-------------|------------------|
| 01 | F1 | Non-Irritability |
| 02 | F2 | Non-Irritability |
| 03 | F3 | Non-Irritability |

Table:-6 Irritability observation



Fig: sample of facial herbal scrub

CONCLUSION

The scrub was made using a variety of powdered, crude medications, and it was evaluated using a number of different parameters. Its formulation has good consistency, superior results, and no negative effects.

The results of the investigation indicate that the developed herbal formulation produced positive outcomes. Above the mentioned we are made three formulations when used or applied three formulation we are observed F1 formulations are better result than other F2 and F3 formulations.

REFERENCES

1. Hughes, G.R., J.Soc. Cosmet. Chem., 1959, X, 159.
2. Encyclopaedia Britannica, 14th Edn; 1929.
3. Kapoor.V.P., Herbal Cosmetics for Skin and Hair Care, Natural Product Radiance, p 306-314
4. Mamillapalli V., et al. "Formulation, Phytochemical, Physical, Biological Evaluation of Polyherbal Vanishing Cream, and Facewash". Research Journal of Pharmaceutical Dosage Forms and Technology 12 (2020): 139-149.
5. Priyan S., et al. "Algal polysaccharides: Potential bioactive substances for cosmeceutical applications". Critical Reviews in Biotechnology 2.39 (2019): 99-113.
6. Yadav R., et al.
7. Wall.F.E., Balsam M.S., Sagarin.E., (eds), Cosmetics: Science and Technology. Jhon Wiley and Sons, Chichester, 1974.
8. Robert Brown. The Natural way in cosmetics and skin care. Chemical market reporter. Issue: July 13, 1998 available in (<http://ask.elibrary.com.html>).
9. Robert Baran, Howard I Maibach, TextBook of Cosmetics Dermatology, Taylor and Francis Publishers, 2005, 3rd Edn, p 50-51.
10. Issue of natural Foods merchandiser, 2001, available in (URL:<http://www.naturalfoodmerchandiser.com.html>)
11. Asada K, Ohara T, Muroyama K, Yamamoto, Murosaki S. Effects of hot water ex-tract of Curcuma longa on human epidermal keratinocytes in vitro and skin conditions in healthy participants: A randomized, double-blind, placebocontrolled trial. J Cos-met Dermatol, 2019;18(6):1866-1874.
12. Chanchaal, D, S.Swarnlata, Novel approaches in herbal cosmetics. J. Cosmet. Dermatol, 2008; 7: 89-95.
13. Kumar, A., S. Barboota, S.P. Agarwal, J.Ali, A.Ahuja, Treatment of acne with special emphasis on herbal remedies expert. Rev. Dermatol., 2008; 3: 111-122.
14. Garg, A., Agarwal, D. and Garg, S. Spreading of semisolid formulation. Pharm Tech., 2002; 9: 89-105.
15. Harish N. M., Prabhakara Prabhu, and Subrahmanyam E. V. S. Formulation and evaluation of in situ gels containing clotrimazole for oral candidiasis. Indian J Pharm Sci., 2009; 71(4): 421-427.

16. Chein, Y.W., Transdermal Drug Delivery, in: Swarbrick J. editor, Novel Drug Delivery Systems, second edition, New York: Marcel Dekker, 2005; 1: 301-380.
17. Sakshi Ecavade : 21 Mind -Blowing Benefits of Fenugreek Seeds for Skin, Hair and Health, April 19,2022
18. <https://www.mapsofindia.com/my-india/india/21-mind-blowing-benefits-of-fenugreek-seeds-for-skin-hair-and-health>
19. Kate MacDonnell: 9 Coffee Benefits for Skin & Hair, Feb 25,2022
20. Mary P. Lupo. Antioxidants and Vitamins in Cosmetics. Clin Dermatol 2001; 19: 467–473.
21. Mane P.K : Formulation and Evaluation Of Peel-Off Gel Formulation Containing Fenugreek , Pharmaceutical Resonance 2021;3(2)
22. E.R.H.S.S Ediriweera, N.Y.S Premarathna : Medicinal and cosmetic uses of Bees Honey-A Review, AYU 2012;33(2):178-182

