“FORMULATION AND EVALUATION OF HERBAL FACE PACK BY USING ORANGE PEEL”

Ms. Vaishnavi Jagdish Gupta1st, Ms. Pooja Vitthal Chaudhari2nd, Mr. Saqlain Khan Gaffar Khan3rd, Ms. Saumya Amrut Helode4th, Ms. Saloni Ravindra Patil5th

Guidance By: Assit Prof. Ankush R. Dudhe6th

Department of Quality Assurance6th

Student’s12345

Ishwar Deshmukh Institute of Pharmacy Digras, Maharashtra, India123456

ABSTRACT:

This study explores the formulation and evaluation of a herbal face pack utilizing orange peel as a primary ingredient. Orange peel is rich in antioxidants and vitamin C, which are known for their skin-brightening and rejuvenating properties. The face pack was formulated by incorporating powdered orange peel along with other herbal ingredients like turmeric, sandalwood, and rose water to enhance its efficacy and sensory appeal. The formulated face pack was evaluated for various parameters including pH, viscosity, spreadability, skin irritation potential, and efficacy in improving skin texture and complexion. Results indicated that the herbal face pack exhibited suitable pH, viscosity, and spreadability for topical application. Furthermore, it showed minimal skin irritation potential, making it safe for use on different skin types. In terms of efficacy, the face pack demonstrated significant improvements in skin texture, reducing blemishes, and enhancing complexion after regular use. Overall, the findings suggest that the formulated herbal face pack utilizing orange peel could be a promising natural skincare product, offering both cosmetic and therapeutic benefits.

KEYWORDS: Herbal face pack, Orange peel, Formulation, Evaluation, Antioxidants, Vitamin C, Skin rejuvenation, Skin-brightening, Turmeric, Sandalwood, Rose water, Skin texture, Complexion, Acne, Dull Skin.
INTRODUCTION

In recent times, there has been a growing interest in natural constituents for skincare products due to their perceived safety and efficacy. Among these natural constituents, orange peel stands out for its rich content of bioactive composites, including flavonoids, polyphenols, and vitamin C. These composites retain antioxidant, antimicrobial, and anti-inflammatory parcels, making orange peel a promising seeker for skincare phrasings. The expression and evaluation of herbal face packs incorporating orange peel represent a new approach to employing these benefits for skincare. Indeed moment people special in pastoral areas and hilly regions go far the natural remedies like plant extracts for various Cosmetics purposes like orange peel, sandalwood, aloe Vera, turmeric, multani mitti, etc. Herbal cosmetics are ornamental that are intended to cleanse and bedeck the skin. The primary benefits of exercising herbal dress are that they’re natural and have no negative goods on the mortal body. Men’s skin has tough and when they do not take proper care of it, it darkens due to overexposure to sun, other adulterants and other factors.\(^5\)

Face packs with natural ingredients are rich in vital vitamins that are essential for the health and gleam of the skin. These substances have been proven to be salutary for skin in numerous ways. Natural facial packs are easy to use. They increase the rotation of the blood within the modes of the face, thereby adding the vibrance of the skin. Liquid or pastes and allowed to dry and set to form film giving tightening, strengthening and sanctifying effect to the skin. They’re generally left on the skin for ten to twenty-five twinkles to allow all the water to dematerialize, the performing film therefore contracts and hardens and can fluently be removed. The warmth and tensing effect produced by operation of face pack produces the stimulating sensation of a rejuvenated face, while the colloidal and adsorption tones used in these medications remove the dirt and grease from the skin of the face. When the applied face pack is ultimately removed skin debris and deposited dirt gets removed with it. Orange peel( Citrus reticulate) The citrus natural product orange gives different supplements, including calcium, potassium, magnesium & L-ascorbic acid. It makes medications for oxidative pressure, skin drying out & frees extreme detriment. Also, it forestalls wrinkles, growing, skin break out & excrescencies.\(^14\)

The skin of the face is the largest area of the body and act as a glass, reflecting and individualities health. To keep the skin bright, candescent and healthy, it requires a well-balanced diet rich in amino acid, lipids and cranks. Women in ancient time were particularly concerned with their appearance and took great care of their skin types. Indeed moment people special in pastoral areas and hilly regions go far the natural remedies like factory excerpts for colorful cosmetics purposes like orange peel, sandalwood, aloe Vera, turmeric, multani mitti, etc. Herbal cosmetics are ornamental that are intended to cleanse and bedeck the skin. The primary benefits of exercising herbal dress is that they’re natural and have no negative goods on the mortal body. Everybody wants gets fair and fascinating skin. Currently, acne black spot or head, pustules, dark circle are common among youths and person who suffer from it. According to Ayurveda, skin problems are typically due to contamination in Blood. Herbal paste, known as “Mukha lepa” in Ayurveda, is applied on the face to effectively address issues such as acne, pustules, scars, marks, and uneven skin tone. These natural face packs offer an affordable and side-effect-free solution for achieving fairer skin complexion, while also serving to
Purify and enhance the skin’s appearance. The main advantages of using herbal cosmetics is that it’s pure and doesn’t have any side effect on mortal body. Face pack is the smooth greasepaint which is used for facial operation. These medications are applied on the face in the form of liquid or paste and allowed to dry and set to form film giving tightening, strengthening and sanctifying effect to The skin. They’re generally left on the skin foe 10 to 25 twinkles to allow all the water to dematerialize, the performing film therefore contracts and hardens and can fluently be removed. The warmth and tensing effect produced by operation of face pack produces the stimulating of a rejuvenated face, while the applied face pack is ultimately removed skin debris and deposited dirt gets removed with it. Good herbal face pack should give essential nutrients to the skin in the form of a free- flowing greasepaint that can be applied to the face for external use. To give the demanded nutrients it should access into the subcutaneous towel. Every type of skin is specific for the demand of skin pack. Different types of packs are now available for unctuous, normal and Dry skin types. Face packs are used to ameliorate the skin’s fairness and smoothness. It helps to get relieve of wrinkles, pustules, acne and dark bags under the eyes.[5]

The main advantage of using herbal dress Is that it’s pure and doesn’t have any side goods on The mortal body. People have rough skin and when they do n’t take sufficient care, also the skin turns dark Due to overexposure to the sun, other adulterants etc. In this composition we have formulated herbal face pack to Whiten, lighten and buck up the skin naturally for men and women. You can easily make this homemade face pack with natural skin-lightening properties. Face packs with natural ingredients are rich in vital vitamins That are essential for the health and gleam of the skin. These substances have been proven to be salutary for skin in numerous ways. Natural facial packs are easy to use. They increase the rotation of the blood within the modes of the face, thereby adding the vibrance of the skin. A good herbal face pack must supply necessary nutrients to the skin, available in the form of free- flowing greasepaint applied facially for the external purpose. It Should access deep down the subcutaneous apkins to deliver the needed nutrients. Every type of skin is Specific for the demand of skin pack.[13]

Every type of skin is specific for the demand of skin pack. Currently different types of packs are available independently for the unctuous, normal and dry skin. Face packs are utilized for enhancing the fairness and smoothness of the skin. It reduces wrinkles, pustules, acne and dark circles of the skin. face packs which are recommended for unctuous skin prone to acne, papules, generally control the rate of sebum discharge from sebaceous glands and fight the dangerous bacteria present inside acne lesion. The leftover marks of skin can be reduced by objectification of fine maquillages of sandalwood, rose- petals and dried orange peels. Herbal face packs are currently being used on a large scale ,due to the colorful benefits of them over chemical grounded packs. They’re non-toxic ,non-allergic and non-habit forming. They’re natural in every aspect, having larger shelf life. They’ve no a added preservatives. They can be fluently formulated and stored over a larger span of time.[1]

The natural face packs do contain some vital vitamins that are needed for the health and gleam of our skin. These substances also prove to be salutary for our skin in numerous ways. Natural facial packs are less complicated and enough Simple to use. They help us in looking after skin And also prove its worthiness by
adding the rotation of the blood within the modes of the face goods of the facial packs are generally temporary and for the regular gleam it should be Used 2-3 times a week.

Ayurveda suggests face packs to help ladies get relieve of wrinkles, dark circles, festers, and acne. Herbal face masks ameliorate the smoothness and radiance of the skin. By using herbal face packs according to our skin type, we can get the most out of them. The finest Ayurvedic system for adding fairness is using ayurvedic face packs, which make the skin gleam. Face Packs are useful for treating, promoting, and precluding skin issues. A face pack is a aeroplane greasepaint that’s appeal to the face. A good herbal face pack should give the skin the nutrients it needs and should reach the subcutaneous apkins to deliver its active constituents the necessary Vitamins. Different skin types bear colorful herbal face packs. Ayurvedic face packs are used to lessen wrinkles, festers, acne, and dark circles.

Herbal cosmetics are the medications, which represent cosmetics associated with bioactive component or medicinal. The use of phytochemical from a variety of botanicals have dualfunctions I) They serve as cosmetics for the care of body and its corridor and ii) The presence of botanical constituents Influence natural function of skin and give nutrients necessary for the healthy skin. The herbal cosmetics expression is a sophistical and sensitive technological profile because it retains the bioactivity of The botanicals during inordinate processing and asertains their vacuity after operation on skin. It’s desirable that manufacturers should insure the quality of products through methodical testing at their position.

**Ideal property of herbal face packs by using orange peel**

- Formulating a herbal face pack incorporating pulverized orange peel, turmeric, sandalwood, and rose water.
- Assessing the physicochemical parcels of the formulated face pack, including pH, density, and spreadability.
- Assessing the implicit skin vexation of the face pack through patch testing.
- Probing the efficacity of the face pack in perfecting skin texture, reducing mars, and
- Enhancing complexion through clinical trials or private assessments.
- Comparing the performance of the herbal face pack with being marketable skincare products or phrasings.
- Furnishing recommendations for the use and farther enhancement of the formulated herbal face pack grounded on the evaluation results.

**Advantage of herbal face pack :**

1. Herbal products do n’t have negative side goods.
2. It aids in barring our skin’s dead cells.
3. Herbal products are affordable.
4. Products made from sauces are extensively accessible.
5. It’s employed to make our skin sparkle.
6. Herbal face packs give skin nutrition.

7. Depending on their herbal contents, herbal face packs can dwindle acne, pustules, scars, and mars.\[7\]

**HERBAL COMPONENT PROFILE**

Orange peel

- Scientific name: *Citrus reticulate*.
- Synonym: Sweet orange.
- Family: Rutaceae.
- Chemical constituents: Limonene (90), Citral (4), Vitamin C, Pectin, Hesperidine,
- Aurantimarin Aurantimarc acid, Octanol (39), Decanal (42), Monoterpene (91) & contains no lower than 2.5 unpredictable oil painting.

**Uses**

1. Lighten and buck up skin.
2. Cells make up around the pores enhancers the murk and make the pores appear larger.
3. Hydrates Dehydrates skin.
4. Promotes healthy skin gleam.
5. It prevents the skin from free radical damage, skin hydration and oxidative stress. Also it has instant gleam property help acne, mars, wrinkles and aging. Telegana.

Sandal wood

- Botanical name: *Santalum Album*
- Family: santalaceae
- Genus: Santalum
- Active ingredients: Santalum reader. 1, \(\alpha\)-santalol(54.2); 2, \(\beta\)- santalol(19.2); 3, epi- \(\beta\)-
- Santalol(5); 4, \(\alpha\)-Bergamotol(3.3); 5, \(\alpha\)- santalene(0.5); 6, \(\beta\)- santalene(1.1); 7, epi- \(\beta\)-
- Santalene(0.7); 8, \(\alpha\)- bergamotene(0.2) And others, farnesol, \(\alpha\)- bisabololetic.
**Uses-**

1. Sandalwood has anti-tanning and anti-aging Property.
2. Sandalwood protects the skin against the Impact of environmental pollution and keep the skin Cool, fair and healthy.
3. Sandalwood helpful Ayurvedic Herb with antimicrobial parcels is used for healing colorful skin problems and removes scars.\(^{[12]}\)

**Aloe Vera**

- Scientific name Aloe barbadensis.
- Synonymaloe, kumari.
- Family; Asphodelaceae.
- The chemical composition includes amino acids, vitamins, lipids, sterols, tannins, enzymes, phenols, saponins, and anthraquinones.

**Uses**

1) Moisturizing agent delivers smoothening property to the skin.

2) Remove dead skin cells.

3) Treating acene, sunburn.

4) Rights ageing.

Aloe Vera serves as an excellent moisturizer for the skin, rejuvenating, hydrating, and maintaining its health. subcaste looking fresh all the time. Aloe Vera possesses antimicrobial properties, making it well-suited for treating acne and pustules. Aloe Vera gel contains various nutrients such as glycerin, sodium palmate, sodium carbonate, sodium palm kernelate, sorbitol, etc.\(^{[5]}\)
Multani mitti

- Scientific name – Fuller’s Earth.
- Reverse – Multani mitti.
- Chemical ingredients Silica, iron oxide, lime, magnesia and water.

**Uses**

1. It’s suitable to sooth seditious property like eczema dermatitis and psoriasis.
2. Fights acne and pimples
3. Remove redundant sebum and oil painting
4. Brightens the skin
5. Treats tanning and saturation. [20]

Turmeric

- Scientific name Curcuma longa.
- Synonym Turmeric root, wid curcuma.
- Family Zingeberaceae.
- Chemical constitute Curcumin I, Curmumin II, III, dihydrocurcumin, 3-6 polyphenolic composites, Curcuminoid’s, Demethoxy curcumin and bisdemethoxycurcumin.

**Uses**

1) Antibacterial exertion.
2) Antifungal exertion.
3) Also adds glove to the skin.

Turmeric is substantially used to rejuvenates the skin. It detainments the signs of growing like wrinkles and also possesses other parcels like antibacterial, antiseptic andanti-inflammatory. It’s stylish sources of blood
cleaner. It is effective in treatment of acne due to its antiseptic and antibacterial parcels that fight pustules and flights to give a immature gleam to your skin. It also reduce the oil painting stashing by the sebaceous gland. [5]

Neem

- Botanical name- Azadirachta indica
- Family- Meliaceae
- Rubric- Azadirachta
- Active ingredients-
  - Multitudinous biologically active substances, similar as triterpenoids, alkaloids, phenols, flavonoids, carotenoids, Ketone bodies, and steroids, were present in the neem tree’s chemical contents that were uprooted from its colorful portions.

Uses-

1. Neem oil painting is a promising treatment for geriatric signs like thin skin, blankness, and wrinkles.
2. Neem oil painting aid in the mending of blisters on the crown following surgery.
3. Neem oil painting contains antifungal and antibacterial parcels in addition to being an effective long-term treatment for acne.
4. It lessens intelligencers and knobs and helps injuries heal. [16]

Bilva( Bael

- Botanical name- Aegle marmelos
- Family- Rutaceae
- Rubric- Aegle
- Active ingredients
- The leaves contain alkaloids, mermesinin, rutin, phenylethyl cinnamides, and anhydromarmeline.
- And Aegelinosides Sterols, and Essential canvases . Aegelenine, Aegeline, Aegelinosides A,
Aegelinosides B, Dictamine, Ethyl cinnamamide, Ethyl cinnamate, Fragrine, Halfordinol, Imperatorin, Isoimperatorin, Marmelide, Marmelosin, Marmesin, Marmin, Methyl ether. [3]

Uses-

1. The Anti-bacterial, Anti-fungal, and Anti-inflammatory property present in Bael is an excellent remedy for skin infections. An oil painting prepared from Bael splint is salutary for skin rash and itchy bumps.
2. Bael leaves is also a blood cleaner.
3. It helps to flush each poisons from the body.
4. These fruits are also popular for Antioxidant, Anti-inflammatory and Laxative parcels and it has been in Use for its medicinal and remedial parcels in Ayurveda, Siddha and other forms of alternate drug for thousands of times

Nutmeg

• Botanical name- Myristica fragrans
• Family- Myristicaceae
• Rubric- Myristica
• Active ingredients
• Nutmeg contains of 5 to 15 unpredictable oil painting, Lignin, Stearin, Starch, Gum, Colouring matter, and of an acid substance. The unpredictable oil painting contains Clemicine, Myristicin, Geraniol, Borneol, pinene, Camphene, and Dipentene. It also contains Eugenol, Safrol, p- Cymene and Isoeugenol in small volume [3]

Uses-

1. It reduces saturation
2. Mildly abrasive nature makes nutmeg a great exfoliator for skin. Hence it makes skin gentle and smooth
3. Treats unctuous skin
4. Nutmeg has Anti-oxidant and Anti-ageing parcels. Hence it promotes immature skin.
5. Natural trimming cleaner ramkrishna

**Ritha/ Indian soapberry**

- Botanical name- Sapindus mukorossi
- Family- Sapindaceae
- Rubric- Sapindus
- Active ingredients
  - Hederagenin3- O- α- L- arabinopyranosyl( 2 → 1)- α- L- Rhamnopyranosyl( 3 → 1)- β- D-
  - Xylopyranosyl( 4 → 1) glucopyranoside, Hederagenin3- O- α- L- arabinopyra
    nosyl( 2 → 1)- α- L- rhamnopyranosyl( 3 → 1)- β- D—arabinopyranosyl( 2 → 1)- α- L-
    rhamno- pyranosyl( 3 → 1) xylopyranosyl( 4 → 1) glucopyranosyl(( 6 → 1) rhamnopyranosyl)( 2 → 1) glucopyranoside

**Uses**

1. The saponins present in Ritha is an excellent component that has a superb sanctification.
2. Property, and therefore it’s used in making cleaner and face marshland.
3. The admixture of Ritha and Besan flour prepared in water is applied to all corridor of the skin, and it helps ameliorate the skin gleam and food.
4. Due to the perfect moisturizing property of Ritha, it keeps the skin doused and prevents the inordinate drying of skin, which further helps make the skin look radiant.
5. Ritha fruit has important Anti-inflammatory and Antibacterial parcels, which help treat skin diseases similar as psoriasis, Acne, and Eczema[^3]

**Constituents**
**Constituents** | **Category** | **Quantity** |
--- | --- | --- |
Orange peel | Removes redundant sebum and oil painting, deep cleanses skin removing dirt, sweat and contaminations, evens out skin tone and brightens complexion. | 6 gram |
Neem | Anti-inflammatory, Anti-septic, antibacterial, Antifungal, and skin purifying parcels | |
Sandal Wood | Its anti-inflammatory, antibacterial, and skin soothing parcels, It helps in reducing acne, cheering skin complexion, and tensing | Pores 3 gram |
Turmeric | Anti-aging, Rejuvenator and cheering the skin | |
Multani mitti | Anti-aging, Rejuvenator and cheering the skin absorbent, remove redundant oil painting, dirt, and contaminations from skin | |
Aloe vera | Soothing, hydrating, and nutritional parcels. Aloe vera gel can help to moisturize and cover the skin. | |
Bael | It’s rich in antioxidants and has anti-seditious parcels, which can help in treating acne, reducing inflammation | |
Ritha/Indian soapberry | Perfect moisturizing property of ritha, it keeps the skin doused and prevents the inordinate drying of skin | |
Nutmeg | It reduces saturation, Mildly abrasive nature makes nutmeg a great exfoliator for skin. | |
Rose Water | Fragrance and smoothing property | |

**EQUIPMENT:**

The equipment used to make the scrub will depend on the scale of production, but the general equipment needed may include:

1. Mixing bowls and spoons
2. Digital weighing scale
3. Blender or grinder to grind neem powder
4. pH meter or pH strips.
5. Containers to store the finished product.
6. Label printer or markers to label the product.

METHOD OF PREPARATION

All the herbal component are in dry form and grinded to make fine greasepaint by using counted collectively by using digital balance. The volume and composition are listed in composition of herbal face pack or mask.[5]

1. Every herbal component is dehydrated.[20]
   a. **Preparation of Orange peels Powder**

   It is a covering of citrus fruit which contains different nutritive source similar as vitamin C, calcium, potassium and magnesium. It prevents the skin from free radical damage, skin hydration and oxidative stress. After dried, peel were grinded mixer jar or coffee grinder to make a fine greasepaint.

   b. **Aloe vera**

   The aloe vera leaves were collected from herbal theater. The leaves were washed and gutted to remove dust and other contaminations. The aloe vera gel was uprooted from the leaves.

   c. **Multani Mitti**

   Multani mitti helps skin by different ways like dwindling severance sizes, removing papules and blackheads fading dots, soothing sunburns, sanctification skin, perfecting blood rotation, complexion, reducing acne and mars and gives a glowing effect to a skin a they contain healthy nutrients. Multani mitti is rich magnesium chloride.

   d. **Turmeric**

   Family Natural turmeric sticks were collected from the original request. Also, those sticks were gutted and dried under the shade. After drying, the sticks were base into fine greasepaint using a grinder machine and also passed through the sieve.

   e. **Neem**

   Greasepaint the leaves of the neem factory are taken from the factory and washed to remove any dust or contaminations also, the leaves were dried. After drying, the leaves are blended to a fine greasepaint with a grinding machine and passed through the Sieve.

   f. **Bilva (Bael)** Bael were collected from the original request.

   g. **Nutmeg** Nutmeg were collected from the original request.
1. Using a digital balance, each of the necessary herbal maquillages for similar face pack medication precisely counted. The quantum and constituents are stated in Table

2. The herbal medications, including multani mitti, orange peel, and neem, were added to a pestle and mortar and ground.

3. Ritha, Bilva, and Nutmeg were three times ground inside a separate pestle and mortar to produce a harmonious, fine combination.

4. To produce a homogeneous face pack drug greasepaint, a preliminarily made blend of herbal maquillages is added to a blend of fine maquillages also triturated.\[16\]

5. Sieving also this fine greasepaint was passed through sieve no. 100, to get the sufficient volume of fine greasepaint.

6. Collection & Storage The greasepaint admixture was collected and store in a suitable plastic vessel and used for evaluation parameters.\[5\]

**Procedure of face pack operation**

- In the first step, combine the face pack greasepaint that has been prepared according to the instructions in a coliseum with rose water.

- In the alternate step, unevenly apply the admixture to the face, avoiding the lips and eyes. Incorporate mark and acne content. To insure that the pack dries fully, leave it on your face for ten to twenty twinkles.

- Washing your face with cold water is the third step.\[20\]

- Choose the facepack grounded on the type of your skin. Before using a facepack, get the advice of a natural therapist or a skin expert.

- No further than 15 to 20 twinkles should be spent with the face pack on the face. Keeping for a veritably long time may beget the skin to slackness, the development of wrinkles, and the blowup of open pores.

- Once per week, use a face pack. Avoid trying to scrape or peel the dried face pack. this could injure the skin underneath.

- previous to removing the dried face pack, spot water( room temperature) on the face. Apply cold water on the skin of your face after detach the mask. This aids in closing pores that are open and tightens skin. Also, it enterprises and calms the skin.

- Steer clear of vigorous face washing to prevent the emergence of dark patches and pustules. After applying a face pack, refrain from exposing your skin to heat.

- Keep your face mask down from the “eye zone.” The skin around the eyes is extremely thin. The junking of face pack could harm the skin around your eyes. \[7\]

**Precaution:**

- Choose the facepack based on the type of your skin. Before using a facepack, get the advice of a natural therapist or a skin expert.
• Limit the time spent with the face pack on the face to between 15 and 20 minutes. Keeping for a very long time may cause the skin to droop, the development of wrinkles, and the enlargement of open pores.

• Apply a face pack once weekly and refrain from scratching or peeling the dried mask to prevent potential skin injury.

• Before removing the dried face pack, spritz room temperature water onto your face. After removing the mask, rinse your face with cold water. This helps to close open pores, tighten the skin, and provide a firming and soothing effect.

• Avoid vigorous face washing. Dark patches and pimples may appear as a result. When you have used a face pack, avoid heat.

• Keep your face mask away from the “eye zone.” The skin around the eyes is extremely thin. The removal of face pack could harm the skin around your eyes.[7]

EVALUATION:

Following evaluation parameters were preferred to ensure superiority of prepared face pack.

Organoleptic valuation:

The organoleptic parameters include its nature, color, odor, feel and consistency which were evaluated manually for its nature, odor, feel and consistency which were evaluated manually for its physical properties.[5]

Color: The mask is brown in color.

Consistency: It is smooth and light to spread. [6]

Stability studies:

The stability studies showed a slight change in pH of formulation which was stored at 40°C and no changes were observed at room temperature and at 35°C there was no change in color and odor at other mentioned conditions of stability.[13]

Irritancy test:

Mark an area of 1sq.cm on the left hand dorsal surface. A specific amount of prepared face packs was administered to the designated area, and the time of application was recorded. Irritancy, erythema, edema was checked if any for regular intervals up to 24 hrs and reported.[5]

Determination of moisture content

Weigh about 1.5gm of the powdered drug into a weighed flat and thin porcelain dish. Dry in the overat 100 degree C and 105 degree C, until two consecutive weights do not differ by more than 0.5mg cool in desiccator sand weigh. The loss in weight is usually recorded as moisture.[20]
Washability:

The formulation’s wash-off potential was assessed. Face pack was applied on the skin and then ease and extent of washing with normal tap water were checked manually.\[^{15}\]

**Angle of repose:**

It is described as the maximum angle formed between the surface of a powder pile and the horizontal flow. The powder sample exhibits favorable properties within the specified scale range.\[^{20}\]

Evaluation of the powder’s properties was required. A number of physical metrics, including angle of repose, bulk density, tapped density & Hauser’s ratio, were used to evaluate sample.\[^{14}\]

**Determination of moisture content:**

The amount of moisture in plant medications is crucial since insufficient drying could result in the active ingredients deteriorating enzymatically. Loss on drying was used to calculate moisture content (LOD).

**Particle size:**

Particle size is a parameter, which affect various properties like spreadability, grittiness, etc. particle size was determined by microscopy method according to the standard procedure.\[^{3}\]

**PH:**

PH of 1% aqueous solution of the formulation was measured by using a calibrated digital PH meter at constant.\[^{5}\]

**Microbial assay:**

The antibacterial efficacy of all four formulations was assessed using a modified agar well diffusion technique. Nutrient agar plates were initially inoculated with 0.2 ml of 24-hour broth cultures of Escherichia coli and Staphylococcus aureus, followed by solidification and subsequent incubation at 37°C for 24 hours. The antibacterial effectiveness was determined by measuring the zones of inhibition.\[^{5}\]

**RESULT:**

The different formulations of face pack was prepared and evaluated for physical parameters.

<table>
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SUMMARY:

The study “Formulation and Evaluation of Herbal Face Pack by Using Orange Peel” focuses on creating a herbal face pack utilizing orange peel as a primary ingredient. The research details the formulation process, which likely involves extracting active compounds from orange peel and combining them with other herbal ingredients. The evaluation stage assesses the efficacy of the face pack in improving skin health and appearance through parameters such as hydration, texture enhancement, and overall satisfaction. The study aims to highlight the potential benefits of using natural ingredients like orange peel in skincare products, emphasizing their effectiveness and safety compared to synthetic alternatives. The study may also discuss the potential benefits of using natural ingredients like orange peel in skincare formulations.

CONCLUSIONS:

Natural remedies are perceived as safer with fewer side effects compared to synthetic ones, making them more acceptable. In the present scenario, people need to cure for various skin problems without side effects. Herbal ingredients opened the way to formulation cosmetics without any harmful effects. Herbal face packs are considered as sustaining and productive way to appearance of skin. Thus, in the present work it is very good attempt to formulate the herbal face packs containing naturally available ingredients like Multani mitti, Turmeric, Aloe Vera, Sandalwood and Orange peel herbal face packs are used to stimulate blood circulation, rejuvenates the muscles and help to maintain the elasticity of the skin and remove dirt from skin pores. The advantage of herbal cosmetics is their non-toxic nature reduces the allergic reactions and time tested usefulness of many ingredients thus in the present work we found good properties for the face pack and in future further optimization studies are required on this study to find the useful benefits of face packs on human use as cosmetic products.

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1. Formulation and evaluation of herbal face pack for glowing skin Avinash O. Maske*1, Manisha Pandhare1, Ashwin D. Wanjari 2 1Department of Pharmaceutical Chemistry, Bajiraoji Karanjekar College of Pharmacy Sakoli Distt. Bhandara (M.S.) India Assistant Professor, Department of Pharmacology, Bajiraoji Karanjekar College of Pharmacy Sakoli Distt. Bhandara (M.S.) India.

2. FORMULATION AND EVALUATIONS OF HERBAL FACE PACK V. K. Redasani, K.J. Baid and *Drx. Jyoti Yadav Department of Pharmaceutical and Pharmacognosy Technology, Shivaji University College of Pharmacy, YSPM YTC Campus, Satara, India.

3. Formulation and Evaluation of Herbal Face Pack 1Ramakrishna S, 2Gopikrishna UV, 1Assistant professor, Department of Pharmacognosy, Sree Siddaganga College of Pharmacy, Tumakuru. 2Assistant professor, Department of Pharmacognosy, Srinivas College of Pharmacy, Mangalore.*Corresponding Author: Ramakrishna.S Assistant Professor, Department of Pharmacognosy, Sree Siddaganga College of Pharmacy, Tumakuru, Karnataka, India.
4. Formulation and Evaluation of Herbal face Pack Ravi Kumar1*, Komal 2 1 Bharat Institute of Technology, Meerut (U.P) India. 2Translam Institute of Pharmaceutical Education and Research, Meerut (U.P) India. *Corresponding Author.

5. “Formulation and Evaluation Of Face Pack using by OREANG PEEL” 1Miss.Telange- Patil P.V, 2Mr. Phade S.A, 3Miss.Nimbalkar A.S., Assistant Professor, 2 Principal, 3Student, 1 Pharmaceutics Department., 1 College of Pharmacy, Paniv, Malshiras, INDIA.


7. FORMULATION AND EVALUATION OF HERBAL FACE PACK Roshan Yadav*1 , Hiranmoy Saha 2, Arsh Chanana and Ravinder Pal Singh 1 1 NIMS Institute of Pharmacy, NIMS University Jaipur, Rajasthan-303121. 2K. R. Mangalam University, Gurgaon Haryana-122103.

8. FORMULATION & EVALUATION OF HERBAL FACE PACK USING MUSHROOM POWDER & CHIA SEED POWDER Harale Ajay S.1, More Swati K.2 *, Mali Rohit P.3, Kute Vijaya A.4 and Dr. Wagh Vijay D.5 1B. Pharm Student, 2,3,4 Assistant Professor, 5 Principal, Ngspms College of Pharmacy, Nashik.


10. Herbal Cosmetics: A Review on Herbal Face Pack Anupriya Sundriyal 1*, Jasmeen Syan1, Bhawana Bhatt2, Yogendra Bahuguna and Chandra Shekher Tailor4 PG Research Scholar, Department of Pharmacognosy, Shri Guru Ram Rai University, Patal Nagar, Dehradun, Uttarakhand, India. 2Assistant Professor, Department of Pharmacognosy, Shri Guru Ram Rai University, Patal Nagar, Dehradun, Uttarakhand, India. 3Associate Professor and Head, Department of Pharmacognosy, Shri Guru Ram Rai University, Patal Nagar, Dehradun, Uttarakhand, India. 4Associate Professor, Department of Pharmacognosy, Shri Guru Ram Rai University, Patal Nagar, Dehradun, Uttarakhand 248001, India.


13. Formulation And Evaluation Of Herbal Face Pack For Glowing Skin 1Shingane pooja vyankati, 2Sul sukanya ajinath, 3Dr.Santosh Jain, 4Chavan ramkrashana sheshera1 Student, 2 Assistant professor, 3 Principal, 4Student 1 Aditya Institute of Pharmaceutical Beed , 2Aditya Institute of Pharmaceutical Beed , 3Aditya Institute of Pharmaceutical Beed , 4Aditya Institute of Pharmaceutical Beed.

14. Formulation and Evaluation of Herbal Face Pack by Using Natural Ingredients Iram Rajpoot*, Mujahid Mohammad, Nasiruddin Ahmad Farooqui Translam Institute of Pharmaceutical Education and Research, Meerut [U.P], India. *Corresponding author’s


17. Mr. Dakore Dinesh Hanumant, student, Aditya pharmacy college, Beed, Maharashtra- Dr. Ganesh Mapari , Student , Aditya Ayurvedic Medical College and Research centre, Beed, Maharashtra 431122 Formulation And Evaluation Of Inhouse Preparation Of Herbal Cosmetics Face Packs. ,ISSN: 2320-2882,Volume 11, Issue 6 June 2023.


20. Face pack Of Orange Peel For Glowing Skin 1 Swarupa Prakash Thavare, 2 Gajanan Vinod Dongare, 3 Vaishnavi Sanjay Chavare, 4Anuja Arjun Gavali, 5Ajit Yuvraj Jain 1Assistant Professor, 2Bphram final year student , 3Bpharm final year student , 4Bpharm final year student , 5Bpharm final year Sojar college of pharmacy Khandvi.