Review on Formulation and Evaluation of Herbal Lipstick Using Paper Flower

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ABSTRACT: Coloring skin especially skin of face and lips is an old work on going to back to ancient period. In present days the utilization of such product has expanded and selection of shades of variety, surface and shine have been changed and become more extensive. This can be seen from the way that lipsticks are marked in many shades of variety to fulfill the interest of women. The current examination was finished to plan herbal lipstick by utilizing natural color since lipsticks are one of the critical beauty care products to be utilized by the women. Attempt was additionally made to assessed the formed natural lipsticks. Because of different adverse effect of available synthetic preparation to introduce work was considered to form herbal lipstick making insignificant or no side impacts.

The utilization of lipstick acquired impressive significance lately and a few beauty care products enterprises expanded showcasing with various shades of colors to meet the demands of women. In the current review made an attempt to formulate lipsticks that contain just natural ingredients utilizing extract of flower of Bougainvillea glabra formulation are prepared and evaluate [34].

Keywords: Herbal lipstick, Natural color, Extract, Bougainvillea glabra, Evaluate.

Objectives:

1. To extract color pigment from paper flower by utilizing suitable solvent.
2. To prepared lipsticks by utilizing natural coloring agent.
3. To assess the formed lipstick [34].

INTRODUCTION

D&C act 1940 and rules 1945, beauty care products implies any article expected to be showered, poured, scoured, or sprinkled on or brought into, or applied to the human body or its any part for bathing, glamorize, advancing charm or reshape the appearance [12].

Beauty care products are the substances used to overhaul the presence of human body. magnificence care items incorporate solid skin creams, creams, powders, fragrances, lipsticks, fingernail and toe nail clean, eye and facial make up, hued contact central focuses, hair tones, hair splashes, gels, antiperspirants, kid things, bubble shower, shower salts and much more things are predominantly well known in both making and made countries. Home grown magnificence care product have creating demand in the world market and are a significant endowment of nature. There a wide extent of herbal magnificence care products to satisfy your greatness framework. Home grown excellence care items are the arrangements, which related magnificence care product related with dynamic bio-trimmings, nutraceuticals or pharmaceuticals [1].

Natural colourants or shading specialists are generally used to give cosmetics goods an extraordinary look. Two techniques are utilized to apply variety to the lips: initial, a solution of dyestuff is utilized to stain the skin, penetrating the external layer of the lip skin, and second, a coloured layer is applied to the lips, hiding any skin unpleasantness and giving them a smooth look. The different natural pigments are Zeaxanthin, Prodigiosin, Astaxanthins, Lycopene β-carotene, Melanin, Anthocyanins, Carotenoids, Betalains, Flavones, Chlorophylls, Lycopene, and so on [2-4].

Colouring lips is an old practice that dates to the ancient time frame. In present days utilization of cosmetic product has expanded, and selection of shades, surfaces have been changed and turn out to be greater. This can be seen from the way that lipstick is being marketed in many shades of varieties to fulfill the increasing demand. In recent time's lipsticks have been under the scanners of numerous wellbeing watchers. Lipsticks are many times destroyed by the client, furthermore, thus are basic that wellbeing controllers have a microscopic look at the ingredients that go into the lipstick. The colours that add to the shade of the lipstick are perilous to human on utilization. In a mild form, the coal tars that are the essential ingredients from which synthetic colours are formed can cause allergy, nausea, dermatitis, and drying of the lips. In a more severe form, they can be cancer-causing and, surprisingly, deadly. Because of different unfavourable impacts of accessible manufactured arrangement, the current work was brought about by us to form and assess herbal lipstick utilizing paper flower having no side impacts, which will widely use by the women of our communities with incredible guarantee and satisfaction [5].

DIFFERENT TYPES OF LIPSTICK AND THEIR USES [6]

You can find different kinds of lipsticks and they can be used in light of your mood or shape of one's lips. The present lipstick market contains number of items with many impacts and characteristics.

Types of lipsticks with essential characteristics.

1. Moisturizing Lipsticks:
individuals who have dry lips ought to utilize moisturizing lipsticks as it keeps lips delicate and smooth. These lipsticks saturate lips as a result of fixings like vitamin E, glycerin and aloe. Other incredible things about utilizing moisturizing lipsticks are wet and exceptionally shiny lips.
2. Silk and Sheer Lipsticks:
These lipsticks additionally moisturize and nourish lips and ensure it is sparkly and shiny. Sheer and silk lipsticks have high oil ingredients and they could show up darker in the package than they are on lips. One more characteristic of lipsticks with oil parts is that it should be replied many times.
3. Mate and Lipsticks:
Mate lipsticks are perfects choice for ladies who are looking for vivid and nice shade. These lipsticks have gesture of level and not gleaming lips. Your
lips will look smoother and more youthful with matte lipstick. In addition, it is encouraged to mix products in with vitamin E and aloe with mate lipsticks.
4. Cream Lipsticks:
women who'd little lips ought to utilize cream lipsticks. Lipstick with cream formula isn't glossy, yet it's smooth effect on lips. You need to utilize lip sparkle thereafter for desire look. Cream lipsticks contain more wax to have the option to safeguard lips, yet in addition objective eventual outcome of dry lips.
5. Pearl and frosted Lipsticks:
Frosted lipstick makes lips shimmer and sparkle. Pearl and frosted lipstick mirrors light and makes extremely sparkling impact on your own lips. Adverse effects are that could cause lips feel weighty, break and dry. It is encouraged to moisturize your lips before use this lipsticks [7].
6. Sparkle Lipsticks:
Sparkle is incredibly well known lipstick for young girls with slim and small lips since make lips sparkle and improve the dimension of depth. Sparkle might be along with traditional lipstick.
7. Long Wearing and Transfer Resistant Lipsticks:
Women who lack opportunity and energy to use Lipstick regularly may utilize long wearing lipstick. These lipsticks have recipe that keep lips look amazing from 4-8 hrs. They're versatile and soon you eat something oily or greasy. A large number of them contain moisturizer to balance the dryness of lips [8].

IDEAL CHARACTERISTICS OF GOOD LIPSTICK:
1. It should be non - irritant.
2. It should have required plasticity.
3. It should non-poisonous.
4. It should be steady both physically and artificially.
5. It shouldn't dry on storage [9].
6. It should be liberated from greatly particles.
7. It should keep up with lip tone for longer period after its application.
8. It should give sparkly and smooth appearance liberated from sweating.
9. It should have charming taste, odor and flavor.
10. It shouldn't melt or solidify inside sensible variety of climatic temperature [10].

ADVANTAGES OF LIPSTICKS [11]
1. The ingredient in the natural lipstick is all regular and is safe to utilize.
2. They also contain normal nutrients that keep lips healthy.
3. They have less or on aspect influences.
4. They are non-harmful, highly lipophilic, anti -oxidants, anti- microbial, anti-inflammatory furthermore, are utilized in leucoderma of lips.
6. Colorants has various firsts conceals of variety from purplish red, ruby red, beetroot purple, dull violet, pastel red, light red, purplish red, rose red, profound fuchsia, dim purple, orange, profound violet.
7. Different combination and shades can be obtained from these colors.

DISADVANTAGES OF LIPSTICKS [13]
the following are a few harmful impacts of lipsticks that can happen assuming you utilize low quality products constantly.
1.Heavy Metals
Studies have shown that lipsticks have concerning levels of chromium, cadmium and magnesium. This will bring about expanding your gamble to hazardous diseases and organ harm. Elevated degrees of cadmium can be put away in the kidney lastly bring about renal failure. applying and yet again applying lipsticks commonly during the day can prompt stomach tumors.

2.Lead
It has been uncovered that the vast majority of the lipsticks have a perilously high measure of lead. Lead is a neurotoxin and can influence the sensory system. It can additionally cause mind harm. This is one reason for hormone imbalance and infertility. regardless of whether it's taken in little amounts, it can have extreme impacts on the body.
3.Formaldehyde and Mineral Oil

Formaldehyde is an additive, which is otherwise called human cancer-causing agent. Wheezing, coughing, irritation of the eyes and skin are different impacts of
formaldehyde. Mineral oil is one more fixing which is utilized in lipstick to obstruct the pores. A significant number of the harmful impacts of lipsticks are expected to these synthetics.

4.Parabens and Bismuth oxy chloride

These are two different fixings that are utilized in the making of lipsticks. The destructive impact of lipsticks is because of the cancer-causing property of these two fixings. The parabens go about as additives very much like the formaldehyde. However, this is utilized in preserving the lipstick, it is exceptionally destructive for the body.

BENEFITS OF LIPSTICK [14]

1.safe to utilize.
2. Natural in nature.
3. Reasonable and non-expensive.
4. Assortment of products.
5. No side effects.
6. Not tested on animals.
7. Free from dangerous chemicals.

PAPER FLOWER

Plant description

B. spectabilis is in some cases referred to as "Paper flower" because its bracts are slim and papery. The most well-known Bougainvillea color is purple or maroon, the others are range from white to orange. It likewise has two varieties on a similar tree, for example, pink and white or pink and orange that is called rainbow paper flower [Fig. 1][15].

Stem is a woody lasting plant, with multitrunked and huge clustering stems which spread up to 2-4 m. The amassing stem utilizes diminishing branches connected the bended thistles. The shade of developing stems is from green to dim green. The bark is pale and corky. Spreading is close and short, leading to an extremely thick plant. The leaves are basic and substitute. The leaf is 5-10 cm long and 2-6 cm wide, with praise to adjusted shapes. Leaves are dark green, rugged in surface, and bristly under. The blossoms emerge in leaf axils, in bunches of three. The shade of the bloom is white, it is little slim size with furry cylinders, and encompassed by garish, brilliant petaloid bracts. The bracts are crinkled, genuinely huge, egg-formed, and have colors in the rose, corroded red, maroon, and purple. The lengthened five-lobed achene fruit is 1-2 cm long, has a dry, hard fruit cover [16].

Figure 1

Taxonomical classification of paper flower [1]

Table 1

Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Caryophyllales
Family	Nyctaginaceae
Genus	Bougainvillea

Ingredients
General requirements [12]

Table 2

Sr.no.	Ingredients	Quantity	Category
1.	Bees wax	7.2 gm	Thickening Agent
2.	White soft paraffin	5.6 gm	Base
3.	Castor oil	4 ml	Blending Agent
4.	Acacia	1 gm	Preservative
5.	Shikakai powder	0.4 gm	Surfactant
6.	Lemon oil	0.8 ml	Antioxidant
7.	Orange juice	1 ml	Antioxidant
8.	Paper flower extract	2.5 gm	Coloring Agent
9.	Perfume	q.s.	Flavoring Agent

Introduction of Herbal Ingredients

(1) BEES WAX: -
Synonym: Paraffin-wax, Cranauba
Biological source: It is an item produced using the honeycomb of the bumble bee and different honey bees.
Family: Apidae
Chemical constituents: The fundamental substance constituents are carbon (73.3%), hydrogen (13.2%) and oxygen (7.5%).
Uses: It offers a cream that safeguards your lips from becoming dry and creating breaks. It is likewise utilized in lip-emollient, lip-sparkle, and so on [23].

2)WHITE SOFT PARAFFIN
Synonym: Petroleum jelly
Biological source: White soft paraffin consists of purified blends of semi- solid hydrocarbons extracted from petroleum.
Chemical constituents: Light liquid paraffin 6.0%w/w, macrogel 1000 monostearate, cetostearyl alcohol, glycerol, potassium sorbate, benzyl alcohol, citric acid monohydrate, povidone, purified water [18].

Uses: White soft paraffin is an emollient that moisturizes the skin and used for treating dry skin conditions such as eczema, pruritus, ichthyosis etc [19].

3)CASTOR OIL:
Synonym: Linseed oil, Ricinus oil
Biological source: - It is non-unpredictable greasy oil acquired from the seeds of the castor bean, Ricinus communis.
Family: - Spurges
Chemical constituents: It is principally made out of unsaturated fats and impartial lipids.
Uses: - It is utilized as a diuretic. It is utilized as a cream. It might advance the recuperating of broken lips. It advances hydration [23].

4) ACACIA
Synonym: Gum acacia
Biological source: It is a dry gummy exudation obtained from stem and branches of Acacia arabica, A. Senegal.
Family: Leguminosae
Chemical constituents: Gum Acacia comprises essentially of Arabin, a compound of Arabic corrosive with calcium. magnesium and potassium salt of Arabic acid are also present. The gum also contains 12-17% of moisture and a trace sugar. Also contains oxidase and peroxidase enzymes.
Uses: Acacia gum is utilized in drugs as a demulcent. It is used as an emulsifier and a thickening agent in icing, filling, chewing gum and other confectionery items. It is additionally utilized in looseness of the bowels, aggravations, ulcer in the stomach and digestive tract, draining heaps, leucorrhoea and so forth [20].

5) SHIKAKAI POWDER
Synonym: Soap -pod, Acacia concinna.
Biological source: It is the dried sticky exudation of stem and parts of *Acacia Arabica*.
Family: Leguminosae.
Chemical constituents: It principally consists of arabin, which is a complex mixture of calcium, magnesium and potassium salts of Arabic acid. Arabic corrosive upon hydrolysis give L-arabinose, L-rhamnose, D-galactose and D-glucuronic corrosive. It likewise contains oxidase and peroxidase catalyst.
Uses: It is traditionally used in a shampoo preparation for hair growth. It is used in soothes Scalp, fights Dandruff. Shikakai also has antifungal properties that help curb dandruff. It is used in nourishes hair follicles [25].

6) LEMON OIL

Synonym: Oleum Limonis

Biological source: Lemon oil is acquired by articulation from the organic product strip of Citrus limon (Linn)
Family: Rutaceae [22]
Chemical constituent: Limonene, α-pinene, Camphene, β-pinene, Sabinene, Myrcene, α- Terpinene, Linalool, β- bisabolene, Trans-α- bergamotene, Nerol and Neral.
Uses: Used topically after dilution in a carrier oil or in a skin care product, Lemon oil boosts circulation, metabolism and digestive function [21].

7) ORANGE JUICE
Synonym: Mosambi, santra
Biological source: It is a fruit obtained from Citrus sinensis linn
Family: Rutaceae
Chemical constituent: 1.5% essential oil is present in the orange fruit. D-limonene (90%), citral, sinesal, n-decanal, n-dodecanal, geranyl acetate, anthranil acid, citronellal, linalyl acetate, methyl ester are present.
Uses: *Citrus sinensis* is effective in the management of arthritis, asthma, Alzheimer's disease, diabetes mellitus, cholera. Orange juice helps in the antioxidant protection and immune support help the body develop resistance infectious agents that come from the blood [27].

8) PAPER FLOWER EXTRACT
Synonym: Bougainvillea glabra
Biological source: It is a flower obtained from Bougainvillea glabra Choisy.
Family: Nyctaginaceae
Chemical constituent: pinitol, betacyanine, flavonoids, tannins, alkaloids, oxalic acid oxidase, phenolic compounds, ribosome inactivating proteins, amylase inhibitors, oxidase and pinitol
Uses: Leaves considered having anti-inflammatory, anti-diabetic, antibacterial, and anti-diabetic activity. It is used for diarrhea, to reduce stomach acidity, cough and sore throat. An infusion of the flowers is used for low blood pressure [26].

9) PERFUME

Uses: It is utilized as scent.
• Making a more normal aroma is utilized.
• Giving the charming scent is utilized

MATERIAL COLLECTION
The herbal lipstick preparation is done with assistance of shade extricated from plants and plant parts. The product of the plant Bougainvillea glabra is utilized for the formulation of Herbal Lipstick. Along with this raw material Bees wax is used as thickening agent, White soft paraffin is used as base, Castor oil is used as blending agent, Acacia used as a preservative, shikakai powder used as surfactant, Lemon oil and orange juice are used as an anti- oxidant, Perfume is used as flavoring agent and Flower pigment of Paper flower is used as a coloring agent during the formulation [29].

EXTRACTION METHOD
PAPER FLOWER EXTRACTION
dried coarsely powdered flower of Bougainvillea glabra (100 gms) The shade were macerated for 7 days separately. After completion of extraction, the extract was filtered through Whatman filter paper (No.10) to remove any impurities if present. The extract was concentrated by vacuum distillation to reduce the volume and evaporated on a water bath. Reddish orange coloured extract was obtained. The concentrated extract was then kept in desiccators to eliminate the unnecessary moisture. The dried extract was packed in airtight glass container for further studies [17].

FORMULATION OF HERBAL LIPSTICK
The natural lipstick was formulated according to general strategy for typical lipstick formulation. The ingredients utilized in the formulation of a herbal lipstick are:
Bees wax - 7.2 gm, White soft paraffin – 5.6 gm, Castor oil – 4 ml, Acacia – 1 gm, Shikakai powder – 0.4 gm, Lemon oil – 0.8 ml, Orange juice – 1 ml, Paper flower extract – 2.5 gm, Perfume – q.s.
All the ingredients were blended in a positive proportion by liquefying white soft paraffin and bees wax at a low flame and afterward formed in a reasonable form (Moulding method) to formulate lipsticks.

EVALUATION OF HERBAL LIPSTICK
Colour and texture: Formed lipstick was checked for colour, lustrous and smooth surface.
PH: The pH of formed lipstick was determined utilizing digital pH meter.
Melting point: The determine of melting point is finished to decide the capacity attributes of the item. The inducing mark of lipstick base ought to be between 60 to 65°C in order to avoid the sensation of grating or dryness during application. Melting point of herbal lipstick is determined by capillary method. The capillary is loaded up with lipstick and connected to the thermometer. At temperature at which lipstick is softened is recorded as melting point.
Breaking point: This test is done to decide the strength and hardness of prepared lipstick. In this technique, the lipstick is set level position 1 inch from the base. Weight is continuously expanded loads are attached to it. At Weight at which the lipstick begins to break, known as the breaking load point. The test will be done in specific condition and at around 25 °C temperatures.
Force of application: It is test for relative estimation of the power to be applied for application. Lipstick was applied at 45ºC to cover a 1sq.inch area until completely covered [30].
Surface anomalies: This was examined for the surface deformities, like no formation crystals on surface, no contamination by molds, parasites and so forth [31].
Aging stability: Prepared natural lipsticks were stored at cooler temperature (4ºC), room temperature (20-30ºC) and high temperature (40-50ºC) for 1hour. Different parameters like dying, crystallization and ease of application were observed.
Perfume stability: The formulated natural lipsticks were tested following 30 days, to record fragrance.
Skin irritation test: It was done by applying product on the skin and left for 10 minutes. Seen that as there was no aggravation on skin.
Solubility test: The formed herbal lipstick was dissolved in different solvents to observe the solubility [30].

Defects in lipstick formulation:
Sweating
It is the most normal issue of lipstick detailing because of high oil content or second rate oil restricting. It might ascend in any environment or temperature rang.
Bleeding
This alludes to the division of colored fluids from the waxy base.
Streaking
A slender line or band of an alternate color a substance appears on the completed product.
Moulding Related problems
Laddering
Lipstick doesn't look smooth or homogenous in the wake of coagulating and setting however rather has a multifaceted appearance.
Deformation
This is an embellishment problem where the state of the lipstick looks deformed. It is perceptible and appears on the two sides of the lipstick.

Cratering
This shows up in split moulding and it appears flaring when stick creates dimples.
Soft Disappointment
This is a problem in which the focal center of the lipstick needs structure and breaks [33].

RESULT AND DISCUSSION:
In last few decades there has been tremendous boost in used of beauty care products by women. In any case, the dangers cause by these synthetic substances has come into limelight very recently. The current work plan and assessment of natural lipsticks was planned to form a lipstick utilizing natural ingredients with a desire to limit the side effects as produced by the accessible synthetic ones.
Thus, from present examination it was reasoned that this planned natural lipstick has better choice to women with minimal side effects however, a detailed clinical trials might be done to get to the plan for improved adequacy [32].

CONCLUSION:
This survey features the materials, waxes utilized for the preparation of lipstick formulation. The review likewise makes reference to the evaluation parameters for lipstick. Consequently, the utilization of natural ingredients is step towards healthy beauty care products and which can be broadly used by the women with great pleasure.

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