

Evaluation of industrial cosmetic products and replacing them with natural products according to modern, traditional and islamic medicine

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ABSTRACT

Nowadays, cosmetic products are used excessively and there are cosmetic products in daily shopping basket of women. One of the public health issue is the possibility of transmission of pathogens by cosmetic products which are not standard and lead to an increase in the risk of various skin diseases and heavy metal toxicities. Herbs are important in traditional, modern cosmetic industries. Consumption of cosmetic products is common among different society. In the past years, the natural products such as *Lamiaceae* were used for cosmetic purposes. In Islamic medicine signs of usage of natural products for health purposes can be found such as *Cedrus Libani*, *Allium sativum*, *Punica granatum*. In modern medicine, plants such as *Aloe vera* are used in cosmetics. The use of cosmetics is a part of life for human society. Based on importance of natural products in traditional medicine and also most of the cosmetic products in the market are made of herb extracts and natural components, more attention should be paid to this issue.

Keywords: Cosmetic products, traditional medicine, natural products, medical plants

INTRODUCTION

In the recent years, the use of cosmetics products has become common and they exist in daily shopping baskets of women and young people. Some of these products include different kinds of cleansers, colognes, varnish cleansers, hair sprays, brushes, powders, razors, facial pans, napkins, dyes, gels, detergents, creams, masks, toothbrushes, dental floss, sanitary napkins and artificial nails [1]. One of the most important health issues is the possibility of transmission of pathogens by cosmetics, due to the lack of standardization of some cosmetics and high utilization, the probability of transmission of infection, risk of infectious bacteria and various fungal infections are expectable [2]. In addition, direct contact with contaminated cosmetics can cause irreparable problems for the consumers [3]. Exposure of the body and skin to contaminated cosmetics, the risk of disease and metal poisoning have been increased [4]. One of the most important places where health issues are important is the women barberies. It is important to catch and transmit illness through these Barberies. Diseases of the skin and blood are one of the most common diseases in these places. In some barberies, there are some

actions that may involve some kind of medical intervention that may endanger the health of the clients, so scientific and executive approaches should be taken. Internet sales of these appliances are another problem; as well as unauthorized materials in cosmetic products which will be complications and illnesses. The use of substances such as minoxidil, progesterone, estrone, spironolactone, canrenone, hydrocortisone, triamcinolone acetonide is prohibited and harmful [5]. The effects of long-term consumption of chemical and synthetic drugs in the pharmaceutical, cosmetic and sanitary industries, which most of the various illnesses are coming from the side effects of the drugs. Therefore, a global and logical approach towards the production of natural and herbal drugs, which have low side effects, have a tremendous effect on treatment [6]. Medicinal plants and natural products are of great importance in modern and traditional medicine, nutrition, makeup and sanitation, industry and pharmacy, modern science and synthesis [7,8]. In these areas, significant attention have been paid to the achievement of biological properties [9]. The manufacture of drugs, hygiene, cosmetics, industrial, pharmaceutical, therapeutic properties on humans and

animals in laboratory are accepted [10]. In traditional medicine of different countries, plants have been used as cosmetic products, for example in china, *Tremella fuciformis* has been used to reduce wrinkles and increase skin moisture levels [11]. In addition, some natural products such as egg yolk are also used to strengthen hair and skin. Honey, olive oil, almond oil, avocado oil, safflower oil or sunflower oil, lime, nettle, rosemary, clover and thyme are widely used in various pharmaceutical, cosmetic, health and food applications [12]. In the past, in some regions of Iran, such as Mazandaran, some plants such as the *Albizia Julibrissin* are known for washing and cleansing in the form of water that breaks down slightly on the palm of the hands and used instead of soap [13]. Some plants have the ability to produce ingredients such as saponin and carvacrol, the main components of essential oil which are used as an antiseptic and antibacterial agent in a variety of drugs and also as a soap flavoring [14]. In recent years, studies and experiments in the manufacture and testing of cosmetics from natural products and medicinal plants such as Aloe Vera extract have been carried out *in vitro* and in clinical trials [15]. In Islam it has been emphasized to use of medicinal herbs, natural products, and hygiene and

sanitary issues [16,17]. Some of the medicinal plants and natural products which have many medicinal properties that are used in cosmetics, health and medicine [18,19]. Because of the high consumption of cosmetics in Iran, it is better to use products that have less side effects and risks in the industry, nutrition, health and medicine, we intend to avoid the constant consumption of industrial cosmetic products and to replace them with Natural products. Cosmetics and hygiene products are in great demand among different classes of society; long and permanent use of cosmetic products for the skin, hair and body of the individuals exposed to dangerous and infectious uses, whether they are female or male, white or colored skin, old or young. Dakarian women in Senegal, in the use of cosmetics [20,21] regarding the repeated use of cosmetics, it is important to avoid contaminating bacteria and fungi in a water containing lotion containing preservatives including urea, parabens, and Imadazolidinyl imidazolidinyl. These are substances are harmful to health. Organic and inorganic compounds that are found in some cosmetics such as eyeliner, can provide a suitable nutrient for the growth of some bacteria [22]. The smuggling of cosmetics and the supply of it by companies and people who

are inappropriate and makes them difficult to deal with; also cosmetics sold in various countries could damage the economy and production. The possibility of heavy metals is very high, and it is a threat to human health and the environment. As found that lead metals, copper, cobalt, iron, chromium, nickel and zinc were investigated [23]. In the case of direct exposure to sanitary products, especially those used on the face, there may be irreparable dilemmas for the consumer. Considering the results and studies, the role of basal and eyeliner in ocular bacterial infections is important. In case of neglecting the proper maintenance, there is a possibility of contamination in cosmetics which, through reuse, causes the transfer of bacteria to the eye, while some cosmetics are contaminated at the time of production and packaging, which is also available to the consumer [24]. Pregnant women are always exposed to various chemicals such as cosmetics, pesticides, industrial chemicals, heavy metals, plastics or drugs that have side effects for men and women [25]. In pregnant women, they can change the gender and increase the risk of hypospadias [26,27]. In a study on pregnant women consuming cosmetic products for their hair, endocrine disrupting chemicals present in these products are considered as a

risk for increasing the incidence of hypospadias in neonates, which can lead to such a defect [28]. In a study, bacterial contamination of cosmetic products around the eyes before and after consumption in Iran, more than 14.5% of the bags and 2.7% of the eyelids were reported before contamination. The most abundant bacteria isolated from samples were *bacillus* and *staphylococcus* coagulase which were negative. Therefore, the high level of contamination in cosmetic products around the eye increases the potential health risks of these cosmetics [29]. Regarding the disadvantages reported by industrial and chemical cosmetics, the use of natural products and medicinal herbs containing organic materials as well as active ingredients, compounds, medicinal properties, therapeutics and nutrition are considered as replacement for them. In the past and in traditional medicine, natural products for makeup and hygiene as well as medicine were used [30]. The use of plant compounds in comparison with similar chemical compounds has less mutagenicity, carcinogenicity and side effects, though non expert use and lack of knowledge in various industries can lead to toxicity and side effects [31]. With the constant use of these substances, it is likely to reduce morbidity as

well as depression, with some natural products and herbs such as *Lavandula officinalis* from the *Labiatae* family having antidepressant properties [32]. The most important constituents of essential oil of lavender plant are geranyl, linalyl and linalyl acetate, butyric acid and camphor, which are used in pharmaceutical compounds, perfumes and cosmetics [33]. The World Health Organization has emphasized on the replacement of chemicals with natural products so countries in the world can plan and act toward the cultivation and production of medicinal plants and use them in various industries such as food, health and medicine [34]. In the traditional medicine, some plants have been used in the cosmetics industry, including plants such as the *Indigo feratinctoria* of the *Fabaceae* family [35] which flowers are widely used in traditional medicine and cosmetic industries due to blue color and the healing properties of wounds; the *Matricaria recutita* of the *Asteraceae* family for the treatment of diseases, inflammation, burning and itching [36]. The *Lamiaceae* is antifungal, anti-bacterial and antioxidant that has been used in food, pharmaceutical, cosmetic, perfume and cologne [37]. *Zizyphus jujube* is a family of jujube which is used as a sedative for the nerves, laxative and for purification of

blood, and its rounded root is used to heal the wounds and old cravings and its leaves are used instead of soap [38].

In recent years, extracts of some plants have been used with regard to their antifungal, microbial and antiseptic properties for the production of soap, ointment, creams and shampoos, as well as suggestions such as garlic, *Allium sativum* from the family, which has been emphasized in traditional medicine of Iran such as the emphasis of the great scientist of Iran, Abu Ali Sina, Louis Pasteur in 1858 [39,40] and recently, biological effects [41,42] and antioxidant have also been reported from *in vitro* studies.

Also, the genus of *Cymbopogon* herbs is a grass widely distributed in tropical and subtropical tropical regions of the world, and, of course, the middle East, and the compounds in the essential oils of the species. Various properties are widely used in pharmaceutical and cosmetic industries. [43]. Some herbal medicines have been used to make cosmetic products for hair shampoos [44]. In a study, a shampoo prepared from *Rosa centolia* on patients. A clinical examination was performed on the scalp. It was reported that rose petal extract

can be used to treat seborrheic dermatitis in the scalp [45].

One of the most important issues in the world today is the health community, its health, beauty and the use of herbal medicines in the wound and efficacy measurements have also been studied and investigated [46].

In a study, hepato-protective effects of *Echinophora Platyloba* extract, which is also used in traditional medicine, have been evaluated for the treatment of wound healing of whole thickness of skin in rats. Therefore, the extract of the plant has healing effects. Appropriate and acceptable methods for repairing the wound thickness of the skin in rats were reported [47].

Thyme Cream has a high effect on vaginal discharge and itching and the level of improvement in vaginal cream [48]. However, in a study, the effect of vaginal herbal cream with Clotrimazole cream was used for the treatment of *Candida vaginitis*. A double-blind clinical trial was performed; 54.2% had completed recovery in thymus group and 47.4% in clotrimazole group.

Improvements in clinical symptoms of itching, burning, edema, dyspareunia, secretion and erythema were seen in both

groups after treatment. Therefore, the thyme vaginal herbal cream has had a similar effect to clotrimazole cream in the treatment of *Candida vaginitis* [49].

Also, sunscreens should not stay on face for long periods of time, as it causes spoilage and in some people, the organs and skin of some plants are applied on their skin and face, which is due to their naturalness.

The walnut plant that has been recognized and used in the traditional Iranian medicine and the world have been proven medicinal and antimicrobial properties and are used in the manufacture of health products such as shampoos and soaps [50].

In Islamic religion, emphasis has also been placed on the use of natural products and cosmetics. Using *Salvadora persica*, toothbrush tree, which mostly grows in the South Asia, Iran, Egypt, India. It contains sulfur compounds, chlorides, flavonoids, saponins, tannins, benzyl isothiocyanate, fluoride, silicon and calcium. It has features as being antimicrobial and anti-dental carries. Cedar plant has antimicrobial properties [51 ,52].

The Prophet Muhammad used depilatory for the removal of hair of his body. He usually applied greasy deodorizer over his hair and

face, and never forgot oil jar, kohl-pot, toothbrush, scissors and comb, also ordered the perfume and classified it from the traditions. Materials which are impregnated with high concentration of lead, nickel and cadmium. Arabian worms were usually made from antimony trisulfide and Stibnite ore known as Ethmid [53] and gradually lead sulfide Galena was dark in color and shiny in appearance [54]. Other types of meal, especially in Iran, are made from burning hazelnuts, castor, almonds, or other oilseeds, cow bone marrow, or their combination such as pistachios, almonds, hazelnuts, and dumplings of the famous cow milk. Correct use of chamomile as a protection against eye diseases, for blackening the eyelids and as a cosmetic for eyelashes [55] and for protecting the eyes against the microbial contamination caused by dust and cool have been used until now and has long been stressed. Three things could increase the visibility: wearing Kohl, looking at the green and looking at the good face. Imam Sadiq also told about hygiene and shortness of nails and kohl, which increases sight power and makes eyelashes to grow and sweetens the saliva. Also, the kohl will varnish the eye; it will grow the hair and wipes the tears [56]. In recent years, some medicinal herbs from extract and

herbal fragrances such as pomegranate have medicinal and biological properties; it has been used in the manufacture of soap and body shampoos and head and stabilizing enhancers. It is also made of soap and shampoo detergents and is welcomed and used by people. These plants and products are valuable and today they are very much studied and used [57].

CONCLUSION

The use of cosmetics and their existence in the lifestyle of households and of course, women and youth, as an integral part of the life of human society in the world has a lot of health risks and costs for Humans health.

And the replacement of medicinal plants and natural products in the past and traditional medicine as well as in Islam, can be considered. The use of domestic products from reputable and well-established companies, as well as the provision of herbal products, is more appropriate and safe, and helps to create employment and production within the community and will also contribute to the health of the community. Various components of medicinal herbs, extracts and essential oils and herbs, especially herbs, are emphasized by the

Quran and Islam and also are being distributed to the market, which requires more study, research, consideration, production, distribution and distribution.

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