

REVIEW ARTICLE

A Review on the Status of Using Cosmetics and Its Side Effects on Iranian Women

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Abstract

Background: Using cosmetics is common in different groups, especially women in Iran. Considering the importance of the usage rate and the possibility of confronting its unsought effects, the cosmetics usage rate by women is studied as the aim of this review.

Methods: This is a non-systematic review study. Data were collected from international databases including Web of Science, Google Scholar, Elsevier, and Pub Med, and local databases including Civilica, Medline Iran Medex, SID, and Scirus, without language and time limitations and by using keywords. In the initial search, 187 articles were retrieved. Then, after omitting the irrelevant and unrelated articles, 51 articles were chosen for the final review.

Results: The highest rate of permanent use of cosmetics is observed in women aged 20-29 year, while the lowest rate belongs to the age group of 50 years and older. Media are very effective in the rate of using cosmetics. The permanent use of cosmetics is related to social, economic, and cultural factors. Using cosmetics causes allergy in 1/3 of women.

Conclusion: Age, economic-social status, education, and social media are effective factors in the use of cosmetics. Enhancing beauty and being seen are the major reasons for using cosmetics among women. Skin allergies are the unsought effects of drug development and cosmetics.

Key Words: Makeup, Women, Cosmetics, Allergy

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INTRODUCTION

Using cosmetics is not just related to the contemporary era. Even in the ancient civilizations, they used different means to become more beautiful. Most people of different social classes use cosmetics as a daily part of body protection [1]. Millions of consumers use personal care products (PCP), cosmetics, and their compounds daily [2]. Cosmetics is defined as “beautiful maker and or makeup provider of the body especially face” [3]. US Food and Drug Administration defines the word cosmetics as a product that is used for rubbing besprinkling or spraying on skin to show it beautiful or a material that is used for the human body or every part of it for cleanness, beauty, increase of attraction and or change of appearance [4]. Personal care products include soap, shampoo, bathroom products, sunscreen cream, hair color, cosmetics, toothpaste, deodorant, and other materials [5]. This group of products is defined as cosmetics in Europe. While in other parts of the industrial world like the USA, they are mainly defined as personal care products [5]. One of the basic needs of women is skin and hair care [6]. The tendency for make-up and show-off in women makes them use

cosmetics [7]. Presently, girls’ use of cosmetics as an essential part of life has made Iran the second consumer of cosmetics in the Middle East and the seventh importer of cosmetics in the world [8]. Since a long time ago, women used different cosmetics. But, in recent years, using different products has had significant growth. However, excessive and improper use of low-quality and unhealthy cosmetics has put consumers’ health at risk. Other than contact allergies, allergic reactions to hair color, nail polish, sunscreen creams, etc. may occur [9]. Because of direct contact with unstandardized cosmetics, irrecoverable problems threaten the consumers [10]. It is possible that at the time of production and packing, cosmetics get contaminated with allergens [11]. Because of the transmission of contamination and pathogens and causing bacterial and fungal infections, cosmetics are considered a health issue [12, 13]. Using cosmetics that have been made with different components has serious health risks for consumers [3]. Among the dangerous combined materials in cosmetics, toxic elements are widely distributed in colored cosmetics such as eye shadow [2]. More than 10000 compounds are used in personal health products and cosmetics, some of which are: coal, Diethanolamine,

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Formaldehyde, Bioglycolic, Paraben, Phenyl diamine, Phthalate, and heavy metals like lead, mercury, arsenic, cadmium, chrome, cobalt, nickel, selenium, thallium, beryllium, zinc, and antimony [1, 14]. Lack of government supervision on cosmetic producing industries causes serious potential health risks like cancer, birth defects, reproductive and development problems, allergies, and respiratory problems [15]. According to the widespread use of cosmetics, supervising the side effects is very important. In this review, the rate of cosmetics used in Iran and its complications in comparison with environmental factors like arthropod bite and contact are studied.

MATERIALS & METHODS

This study is a narrative review. The study's data were collected from international databases including Web of Science, Google Scholar, Elsevier, Pub Med, Science Direct, and Scopus, and local databases including Civilica, Medline Iran Medex, SID, Scirus, and using the keywords: makeup, women, cosmetics, allergy and contact dermatitis, and by single and advanced searching, without language and time limitations. In the initial search, 187 articles were retrieved. Then, after omitting the irrelevant and unrelated articles, 51 articles were chosen for the final review and were analyzed.

RESULTS

One of the oldest and most widespread human activities is the activities related to face and body makeup [16]. Using cosmetics in the contemporary era is not a new subject. Even the ancient civilizations used cosmetics. The beginning of the widespread use of cosmetics goes back to the second part of the 19th century when the Industrial Revolution occurred and chemistry (chemical aroma) vastly developed. It was around 1920 that cosmetics excessively entered the market and, in the years of 1950, and 1960 European fashion attracted most of the countries [17].

Presently, girls' use of cosmetics as an essential part of life has made Iran the second consumer of cosmetics in the Middle East and the seventh importer of cosmetics in the world [8]. A survey of the studies and works in Iran and other countries shows that despite the historical roots and deep impacts of excessive use of cosmetics on human societies, it has not been very much considered by thinkers.

In 2013, Manova's study showed that the use of cosmetics had reduced in Switzerland and Germany and there was a significant relation between the rate of use of cosmetics and socioeconomic status [18]. In Loretz's study in 2005, it was shown that the highest rate of using cosmetics was related to face cream, lipstick, and body lotion [19]. Loretz's study in 2008 showed that the highest rate of using cosmetics was related to face jell, hair conditioner, and eye shadow [20]. In the Ficheum study in 2014, it proved that 88% of women used nail polish at least once a year and 98% of adult consumers used nail polish permanently [21]. In terms of studying the rate of using cosmetics, there have not been many studies in Iran. Studies performed are limited to some articles about sociology and the reason for using cosmetics. In Babamiri's study (2011), it was indicated that social

factors were more important than personal characteristics in using cosmetics by female university students [7]. In the study by Abolhassan Tanhaei (2009), results showed that Iranian women's increase in economic, cultural, and social status caused differences and distinctions with their past [22]. In Kiani's study (2013), it was indicated that the relation between the variables of age, media consumption, self-confidence, and the girls' tendency to use cosmetics was significant [8]. In the study conducted by Rezai et al. (2010), results showed that consumerism, social pressure, and media consumption were 83% of the causes of using cosmetics [23].

According to Agner's study, 14 million Iranian women, in comparison with 140 million women in the Mideast, spend \$1.2 billion in cosmetics and gain the billion-dollar global market [24]. The study by Dehghani et al. showed that the age group under 30 years had the highest permanent use of cosmetics, and with aging, the permanent use rate reduced to about 10%. There is a significant relationship between socioeconomic status and the tendency of women to use cosmetics. Practically, in individuals with higher education and higher economic status, the rate of using cosmetics and the cost of these materials increases [25]. Studies show that in the case of makeup, women can be more successful in gaining job opportunities [26]. In today's societies, media deeply affect people's attitudes. In explaining the effective factors on women's makeup, the media's role cannot be ignored [24]. Studies indicate that since 2002, television has been very successful in getting the viewers' attention, so that a woman can change her mind about her appearance in only 30 minutes of television watching [27, 28]. Lots of industries are increasingly affected by social media. The experience of consumers shows that the influence of media is possible in medicine, skin diseases, and the rate of using cosmetics [7]. Television has a physical effect on the viewers. From 2000 to 2009, plastic surgery was increased about 91% in the USA [29]. Studies showed that in 65% of the cases, the source of promoting appearance patterns was satellite television and its advertisements [24]. The study done by Safari et al. (2014) indicated that Media were about 27% responsible for the rate of using cosmetics [30]. In the study by Maghsodi et al. (2014), it was shown that 35.5% of university students claimed that media advertisements were the reason for using cosmetics [31]. In the study by Maghsodi et al. (2014), it was shown that 35.5% of university students claimed that media advertisements were the reason for using cosmetics [7]. In the study by Fatehi and Ekhlesi (2008), it was shown that there was a significant relation between the rate of using cosmetics and social media [32]. According to the results of the study by Dehghani et al., 58.6% of the individuals believed that media was very effective in the rate of using cosmetics. 59.9% of the individuals believed that satellites had the highest effect. Also, the results of the study showed that there was a significant relationship between using social media and women's tendency to use cosmetics [25]. According to the study by Khraim (2011) in the United Arab Emirates, factors of brand, product quality, price, design, etc., were the effective factors of women's adherence to a special brand [23].

DISCUSSION

In the study conducted by Maha in Senegal in 2003 on bleaching creams, it was indicated that using Glucocorticoid exacerbated the skin infectious diseases and acne [33]. Olumide study showed that the side effects of bleaching creams were very serious and fatal [34]. In Raynaud's study (2001), it was shown that there was a significant relationship between the risk of high blood pressure and diabetes and the use of cosmetics [35]. The side effects of bleaching creams are skin disorders like contact dermatitis, exogenous, nephropathy, nervous and eye disorders, etc. There is a significant relation between these side effects, the duration of using cosmetics, and the simultaneous use of different types. Disorders caused by cosmetics are like contact with pesticides and chemical materials which cause chronic diseases [36, 37]. According to the results of Ghazvini's study (2007), more than 14.5 % of mascaras and 2.7% of eyeliners were contaminated before consumption [38]. Anton (1988) stated that nail cosmetics and perfumes were respectively 13.4% and 8.4% of the reasons for allergy in patients suffering from contact dermatitis related to cosmetics [39]. In the study by Thyssen (2008), it was shown that the prevalence of allergy to PPD was high among dermatitis patients in Asia, Europe, and North America. In Europe, sensitivity is higher in women rather than men [40]. The results of Angerer's study (2011) showed that 16% of the eczema patients in Europe were sensitive to perfume components. About 1 to 3% of the total population of Europe is sensitive to perfume components [41]. In Anton's study (1987), it was shown that 4.2% of patients had an allergy to cosmetics. In 45.1% of the cases, perfume components, and in 11%, preservatives were responsible for causing allergy and sensitivity [42]. The results of Nielsen's study (2001) in Denmark showed that the prevalence of contact dermatitis allergic to cosmetics allergens in the years between 1990-1998 was doubled [43]. In Darble's study (2009), it was indicated that using an undershirt in the armpit area causes breast cancer [44]. The study conducted by Erin (2001-2004) in North America proved that the highest rate of allergy to cosmetics was mucosal allergy type and the lowest was respiratory allergy [45].

CONCLUSION

Variables such as demographic characteristics, socioeconomic status, family relations, and cultural status are some of the effective factors in the rate of using cosmetics by women. Nowadays, women like to always look beautiful. Enhancement of beauty and being seen more are the main reasons for using cosmetics by women. The increasing use of cosmetics is about social-economy status and the changes within it. Media have an important role in creating and reinforcing beauty rules. Using cosmetics excessively shows the emergence of new phenomena in society which is not necessarily a sign of social health improvement. Using unstandardized cosmetics causes skin side effects like dermatitis and or other chronic skin diseases. It may generate dermatitis caused by physical, chemical, and biological factors such as arthropods, fungi, and bacteria. We can increase the health level by increasing the awareness of

women about the effects of using unstandardized cosmetics and by increasing the women's knowledge an effective step in reducing the use of unstandardized cosmetics is taken.

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