



## SOCIALIZATION ON HOW TO CHOOSE THE RIGHT COSMETICS FOR TEENAGERS

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### ABSTRACT

**Background:** Cosmetics are one of the products with a large market share. The high demand for cosmetic products encourages some manufacturers to deliberately add harmful ingredients to their products to gain significant profits. **Objectives:** This community service aims to socialize how to choose the right cosmetics needs to be conducted as a provision for the community to avoid harmful cosmetic products, especially among teenagers who are easily deceived by advertisements on social media. Therefore, the community service team from the Bachelor of Pharmacy Program at Universitas Muhammadiyah Lamongan conducted socialization on how to choose the right cosmetics for teenagers. **Method:** This activity was carried out at SMA Negeri 3 Lamongan (Class XII – 2) using counseling methods with PowerPoint media and banners. The success of this activity was analyzed through pre-test and post-test results. **Results:** The results showed that the average post-test score was higher than the pre-test score, indicating an increase in participants' knowledge after the socialization activity. This activity is expected to have a positive impact on the community, especially the students of Class XII – 2 at SMA Negeri 3 Lamongan. **Conclusion:** This program has successfully increased in post-test scores compared to pre-test scores, meaning that the participants' knowledge improved after the socialization.

**Keywords:** Counselling ; Cosmetics ; Teenagers

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### A. BACKGROUND

Cosmetics can be defined as products applied to the surface of the human body. The external parts of the body include the epidermis, lips, hair, nails,

external genitalia, teeth, and the mucous membranes around the mouth. The functions of cosmetics are to cleanse, provide fragrance, enhance appearance, protect, and care for body health (Supriningrum et al., 2019). Cosmetics are used by people of all ages, including teenagers. Teenagers are a group of individuals aged between 12 and 21 years. The age range of teenagers can be divided into three categories: early adolescence (12–15 years), middle adolescence (15–18 years), and late adolescence (18–21 years) (Rizkyta & Fardana, 2017).

Currently, teenagers can easily access information about cosmetics through social media. This significantly influences their decision-making process when choosing cosmetic products. However, it is important to note that information circulating on social media is often inaccurate and primarily focused on product marketing. Additionally, teenagers' curiosity to try various products makes the environment a key factor in determining the level of cosmetic use among them (Zaki et al., 2021).

The strong desire to purchase cosmetics is often not accompanied by sufficient knowledge on how to select the right and safe products. This can lead teenagers to fall into the trap of using illegal cosmetics that claim to provide instant results at low prices. However, it is important to remember that there is a reason why these products are sold at such low prices (Djaya, 2020). Examples of harmful substances commonly misused in cosmetic products include mercury, hydroquinone, and retinoic acid (Indriaty, 2024). According to the official website of The National Agency of Drug and Food Control (*BPOM*), by the end of 2024, BPOM successfully identified 235 items (205,400 pieces) of illegal cosmetics circulating in several regions across Indonesia (Bureau of Cooperation and Public Relations, BPOM).

Based on the explanation above, the Community Service Team from Universitas Muhammadiyah Lamongan organized a socialization activity on how to choose the right cosmetics for teenagers. This activity was carried out at SMA Negeri 3 Lamongan.

## **B. METHOD**

The community service activity conducted was a socialization or counseling session titled “The Importance of Using Cosmetics Properly for Teenagers”. The target audience of this activity was the 12th-grade students (Class XII-2) at SMA Negeri 3 Lamongan. This activity was carried out by the community service team

from the Bachelor of Pharmacy Study Program, Faculty of Health Sciences, Universitas Muhammadiyah Lamongan.

In general, the activity was divided into three stages: preparation, implementation, and evaluation. Below is the description of each stage:

1. Preparation Stage

The preparation stage included internal discussions, task distribution, location surveys, discussions with partners regarding the planned socialization, and the creation of necessary socialization media such as PowerPoint presentations and X-banners.

2. Implementation Stage

The implementation began with the distribution of pre-test sheets to measure the students' initial knowledge of cosmetics before the presentation. The next step was delivering the material on how to select safe and appropriate cosmetics for teenagers. The material was presented through a lecture method, followed by a question-and-answer session. After the presentation, a post-test was conducted to assess the students' understanding of the topic after the session.

3. Evaluation Stage

The success of the socialization activity was evaluated by comparing the pre-test and post-test scores. If the post-test scores were higher than the pre-test scores, it was considered that the students' knowledge had improved.

## **C. RESULTS AND DISCUSSION**

The objective of this activity is to enhance the knowledge of teenagers, specifically the twelfth-grade students at SMA Negeri 3 Lamongan, regarding the appropriate and correct selection of cosmetics. The activity commenced with an opening and welcoming speech. Following this, participants filled out a pre-test form. The pre-test was conducted to measure the participants' knowledge of the proper selection of cosmetics before the material presentation. After completing the pre-test, the next activity involved a presentation on the subject matter using PowerPoint and X-banner.

This socialization included educational content about several hazardous substances that are prohibited from being added to cosmetic ingredients, such as mercury. This substance is often misused as an instant skin whitener/brightener. However, it is carcinogenic (causing cancer) and teratogenic (causing birth

defects). Another substance frequently misused in cosmetic products is retinoic acid. This substance is often misused as a chemical skin exfoliator that is teratogenic. Hydroquinone is often misused as a skin whitener/brightener, which can cause skin irritation and ochronosis (a condition that causes darkened skin). The colorants Red K3 and Red K10 are often misused in lipsticks or other decorative preparations (Wahyurini, 2016).

According to the Indonesian Food and Drug Administration Regulation Number 18 of 2015 on Technical Requirements for Cosmetic Ingredients, hydroquinone has been prohibited from use as a whitening agent in cosmetics. Hydroquinone is an effective whitening agent but has damaging side effects when used long-term. Dermatologists in several countries recommend the use of hydroquinone at a concentration of 2%, while in other countries, recommendations go up to 4%. For daily use, hydroquinone should be used for no more than six months. Its mechanism of action involves inhibiting melanin production (Gul, 2014).

The use of hydroquinone at concentrations greater than 5% can cause the exfoliation of the outer skin layer, and prolonged use can lead to the inhibition of melanin formation (ochronosis). The most common side effects include burning sensations, itching, irritation, pigmentation, disturbances in the ear, fingers, and finger joints. Hydroquinone also has potential carcinogenic properties, which can cause nephropathy (kidney disorders), leukemia (blood cancer), and hepatocellular adenoma (liver cell cancer). Furthermore, hydroquinone has been found to affect the immune cell response, leading to increased allergic reactions by enhancing the production of interleukin-4 and immunoglobulin E. Therefore, its use must be based on a doctor's prescription (Gul, 2014; Schwartz, et.al., 2023).

Mercury and its compounds must not be added to cosmetics at all, as these substances are listed in the prohibited materials list, in accordance with the Head of the Indonesian Food and Drug Administration Regulation Number 17 of 2022 on the technical requirements for cosmetic ingredients (Pratiwi et al., 2021). Excessive use of hydroquinone can cause ochronosis, a condition where the skin develops sand-like nodules and turns bluish-brown, and sufferers of ochronosis may feel a burning and itching sensation (Astuti et al., 2016).

In addition to providing information about some hazardous substances in cosmetic products, this activity also disseminated information on how to choose the right cosmetics with the “Cek KLIK” campaign.

“Cek KLIK” is a slogan introduced by BPOM, standing for *Cek Kemasan* (check packaging), *Label*, *Izin Edar* (circulation permit), *Kadaluarsa* (expiration date), from the medicines and foods to be consumed. When selecting cosmetics, it is essential to ensure that the packaging is in good condition (not damaged/defective). Cosmetics with damaged packaging (bulging/dented) should be avoided because if the packaging is damaged, the quality of the product inside is no longer guaranteed. Next, choose cosmetics with intact labeling, not detached or separated, and not faded, so that the information can be clearly read. Check the label to obtain information on the cosmetic name, benefits, usage, composition, country of origin, complete notification address, batch number, size, expiration date, notification number barcode, and warnings. Most importantly, check for the circulation permit indicated by a notification number followed by one letter N and 11 digits, and finally, the expiration date written sequentially from day, month, and year (Triyandi et al., 2024).

In addition to “Cek KLIK,” another important consideration in choosing cosmetics is an individual's skin type. There are five commonly recognized skin types: dry, normal, oily, combination, and sensitive (Nurianti, & Renaldy, 2024). Each skin type has different requirements for cosmetics with specific characteristics.



**Figure 1.** Material Presentation using PowerPoint Presentation



**Figure 2.** Community Service Team and the Students after the Socialization

After the presentation, the next session was a question and answer session. During this session, participants were given the opportunity to ask questions

related to the theme. One example of a question asked by a participant was, "Do teenagers need to use sunscreen? What does SPF mean?" Sunscreen is a skincare product used to protect the skin from sun exposure. This product is very important for teenagers because, at this age, outdoor activities are quite significant, making it possible for them to be exposed to sunlight with high intensity. Prolonged and excessive sun exposure can have detrimental effects on skin health, such as sunburn, skin darkening, premature aging, and an increased risk of skin cancer. Therefore, using sunscreen before engaging in outdoor activities is necessary (Maharani & Tarcisia, 2024).

SPF is a term commonly found on sunscreen product packaging. SPF is the value obtained from the comparison between the amount of UV energy required to reach the minimal erythema dose (MED) on skin protected by sunscreen and the amount of UV energy required to reach the minimal erythema dose (MED) on unprotected skin (Pratiwi et al., 2016). The higher the SPF value, the greater the level of protection. SPF values range from 0 to 100, and sunscreens with an SPF value above 15 are considered effective (Kanani, 2017).

The final session was the post-test session. In this session, participants were asked to fill out a questionnaire with the same questions as those in the pre-test session. The pre-test results would be compared with the post-test results to determine the success of the socialization that had been conducted. The questions on the pre-test and post-test forms can be seen in Table 1.

**Table 1.** List of Questions and the Results of Pre-test and Post-test  
(based on Kumala et al., 2024 with modification)

No	Questions	Percentage of correct answers	
		<i>Pre-test</i>	<i>Post -test</i>
1.	Are cosmetics only intended to cleanse the skin from dirt?	43%	69%
2.	Is mercury included in the list of banned substances in cosmetics because it is carcinogenic?	91%	100%
3.	Is retinoic acid widely used as a skin whitening agent?	43%	43%
4.	Does "non-comedogenic" labeling mean that the cosmetic is safe for oily and acne-prone skin?	82%	82%
5.	Can hydroquinone cause darkened skin and irritation after six months of use?	69%	78%

6.	Are cosmetic products containing glycerin suitable for oily skin?	47%	60%
7.	Are all products with the BPOM logo guaranteed to be free of hazardous substances?	56%	69%
8.	Can performing a patch test before using new cosmetics help prevent allergic reactions?	73%	95%
9.	Do cosmetic products containing mercury usually have a thick and shiny, silver-like texture?	82%	91%
10.	Are cosmetics with SPF not necessary for teenagers even though they are often exposed to sunlight?	86%	91%
Average		67%	78%

Based on Table 1, it is known that the average correct answers in the post-test are higher than the average correct answers in the pre-test. Therefore, it can be considered that there is an increase in participants' knowledge after the socialization activity was conducted.

#### **D. CONCLUSION AND SUGGESTION**

The socialization activity was conducted successfully. This is evidenced by the increase in post-test scores compared to pre-test scores. Moreover, the enthusiasm of the students was also very positive, as demonstrated by the highly interactive Q&A session. Socialization activities on choosing appropriate cosmetics for teenagers should be conducted periodically to ensure that teenagers have adequate knowledge of current cosmetic issues. Regular socialization activities regarding the proper and correct selection of cosmetics for teenagers need to be conducted periodically to ensure that teenagers have adequate knowledge about the latest issues concerning cosmetics.

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