

**AN ASSESSMENT OF THE PERCEPTION OF STUDENTS IN TERTIARY
INSTITUTIONS ON THE EFFECTS OF USAGE OF COSMETICS ON HEALTH.**

Presented by

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DOI: <https://doi.org/10.82340/injohkshe.vol1no1.8>

ABSTRACT

The study assessed the perception of students in Tertiary Institutions in Osun State on effects of indiscriminate use of cosmetics on health. The study employed a descriptive research design. Multi-stage sampling technique was used in the selection of (1,000) respondents from institutions in Osun State. Three research objectives were raised with their corresponding hypotheses. A self-designed and validated questionnaire was used to collect data. Test-retest was used and reliability correlation co-efficient of 0.89 was obtained. Findings revealed that, table value of 9.488 which is lower than calculated value of 322.4 under the Degree of Freedom of 4 and at 0.05 Level of significance, the hypothesis was therefore accepted. This indicates significant relationship is not exists between usage of cosmetics and students health in Osun State. Result also indicated higher Table value of 9.488 while the Calculated value was 1749.4, the hypothesis was therefore rejected, meaning that significant relationship exists between student's level of awareness of components of cosmetic and effects of cosmetics on their health in Osun State. Finally result revealed higher Table value of 9.488 while the Calculated value was 1659.4, the hypothesis was then rejected, meaning that significant relationship exists between student's perception on usage of cosmetics and its effects on health. Based on the findings of this study, therefore the following recommendations were made: Tertiary Institutions should implement health education programs and workshops to inform students on health effects of cosmetics. Tertiary Institutions could partner with cosmetic brands focus on natural or organic products to promote awareness.

Key Words: Health, Cosmetics, components of cosmetics, Perception, effects, indiscriminate usage.

Introduction

The usage of cosmetics has become an integral part of modern lifestyles, especially among Tertiary Institutions and College students. Cosmetics, including skincare products, makeup, and hair care items are commonly used to enhance appearance and boost confidence. However, concerns about the potential health effects of these products have emerged in the recent time. This review explores the existing body of research on the perception of students in tertiary institutions regarding the health effects of indiscriminate usage of cosmetic, (Davids and Hoss 2016).

Cosmetics are substances used to clean, improve or change the appearance of the body or its parts. Cosmetic is any preparation applied to the body for beautifying, preserving, or altering the appearance or for cleansing, cosmetics are composed of mixtures of chemical compounds derived from either natural sources or synthetically created ones. Cosmetics have various purposes. Those designed for personal care and skin care can be used to cleanse or protect the body and skin. Cosmetics designed to enhance or alter one's appearance (makeup) can be used to conceal blemishes, enhance one's natural features (such as the eyebrows and eyelashes), add colour to a person's face, or change the appearance of the face entirely to resemble a different person, creature or object and Cosmetics can also be designed to add fragrance to the body, (Alaluf e tal, 2020).

Natural traditional history of cosmetics affirmed that in ancient Egypt, being beautiful brought them closer to the god, the Egyptian civilization that was a pioneer in the concept of care and beauty, being copied by the rest of civilizations. It could be said that they were pioneers in creating trending topics. The belief they had was that "Being beautiful brought them closer to the gods and was a connection with the afterlife." In fact, cosmetic jars have been found dating back to 3,500 BC, with evidence that they were used by both men and women (Ayodele, 2021).

Osborn (2023) claimed that Cosmetic and beauty products, though not essential for physical health, go a long way in providing mental well-being and confidence, hence are used substantially. Indiscriminate and increasing utilization of various cosmetic products could lead to a multitude of adverse effects on health. There is more awareness about cosmetic products and their adverse effects, and studies on the same are currently trending. Bibliometrics has become a prominent and growing field of research in recent years.

According to Adeyeye Durojaiye, and Akinmoladun (2020) 80% of Tertiary Institutions students in Nigeria use cosmetics regularly, primarily for improving their physical appearance and social acceptance. Many students equally use skincare products such as lotions, sunscreens, and cleansers, while others engage in makeup application as a form of self-expression and identity construction. In the same vein Aderemi, Adebisi & Olanrewaju (2019) expressed that usage has been found to increase among female students, though male students are also reported to use cosmetic products like deodorants, hair gels, and aftershave.

Despite the benefits associated with cosmetic usage, there are several health concerns related to prolonged or improper use of these products. Cosmetics, especially those with synthetic chemicals, can cause various health issues, including skin irritation, allergic reactions, and even long-term health risks, (Adewumi Banerjee and Pal 2022).

Alaluf, et al, (2020) examined the health implications of cosmetic products, parabens, phthalates and sulfates were identified as ingredients commonly found in cosmetics and that these can disrupt hormonal functions and contribute to skin damage. Studies by Parker and Marques (2019) emphasized that cosmetic products could contribute to skin conditions like acne, eczema, and allergic dermatitis, while Williams, Miller and Sullivan (2020) equally observed a higher incidence of skin irritation and breakouts among young users of certain skincare products, suggesting that improper or excessive use of cosmetics can compromise skin health.

The perception of students in tertiary institutions regarding the health effects of cosmetics varies widely. Gbadamosi, Adeyemo and Fadare (2021) found that while many students acknowledge the health risks associated with cosmetics, their usage remains frequent due to the desire to conform to social norms and peer pressure. Some students, particularly those in urban Tertiary Institutions, express limited awareness of the potential dangers posed by the chemicals in cosmetics. Adewumi Banerjee and Pal (2022) in their study of Nigerian students, found that while 70% of respondents agreed that cosmetics could have negative health effects, only 40% modified their cosmetic usage due to health concerns.

In contrast, Nguyen and Lim (2020) found that a substantial proportion of students were concerned about the environmental and health risks of cosmetic products, particularly in European tertiary institutions. A significant percentage of students expressed interest in using organic and cruelty-free products, which are perceived as safer for both personal health and the environment. Similarly, Lee, Cho and Kim (2021) found that South Korean students were more likely to be aware of the ingredients in cosmetics and their potential health effects, with a strong inclination towards using products with fewer chemicals. Psychosocial factors, including self-esteem, social identity, and media influence, play a significant role in cosmetic usage.

Ibrahim, Johnson and Peter (2019), affirmed that cosmetic usage among students is closely linked to the desire to enhance self-image and social acceptance. Peer pressure and the portrayal of beauty standards in the media have a profound influence on students' decisions to use cosmetics, even when they are aware of the potential health risks. Baker et al. (2020) argue that students' perceptions of beauty and health are shaped by societal expectations, which often prioritize appearance over health consequences. Moreover, students who are more self-conscious about their physical appearance tend to use cosmetics more frequently. Ogunyemi et al. (2022) showed that Nigerian students who had low self-esteem were more likely to use cosmetics, perceiving them as a means to improve their self-image. However, such behaviour sometimes leads to neglect of the potential health risks, as students prioritize immediate aesthetic benefits over long-term health concerns.

The regulation of cosmetic products has become a significant point of discussion in the literature. Ayodele et al. (2021) expressed that although some countries have strict cosmetic safety regulations, many developing nations lack comprehensive policies on the labeling and safety testing of cosmetic products. In some cases, students unknowingly use harmful products due to inadequate regulation and lack of consumer awareness.

Abimbola et al. (2021) advocated for greater consumer education and awareness on the ingredients and potential health risks associated with cosmetics. They suggest that Tertiary Institutions should implement educational programs on safe cosmetic usage to equip students with the knowledge to make informed decisions about the products they use. Sulaimon et al. (2020) also recommend more stringent cosmetic product testing and certification processes, particularly in countries where the usage of unregulated or substandard products is prevalent.

Considering the serious skin concerns associated with certain skin-lightening products (SLPs), many African countries, including South Africa (SA), have legislated policies to ban the sale of items containing mercury and hydroquinone. bibliometric features and conduct systematic trend analysis on the literature available on cosmetics' adverse effects. They also analyzed all the published documents that included the keywords "cosmetics" and "adverse effects" between 1957 and 2024. The study of the adverse effects of cosmetics is now being supported and taken up by the researchers/authors from developing and underdeveloped countries.

In Africa the use of skin-lightening products (SLPs) for cosmetic purposes has become common practice among women with dark skin tones. Despite the associated risks Benn et al. (2016) claimed that the practice is still significantly increasing in Africa. Recently in Africa, there has been a surge in the use of SLPs among young adults It is therefore important to evaluate the extent

to which these individuals are knowledgeable about product use and the associated side effects. Limited epidemiology studies have been conducted in SA, specifically in the Western Cape, on this issue. As such, this study aims to investigate the knowledge and perceptions behind the practice among a diverse cohort of young adults in the region. (Davids and Hoss 2016). Skin-lightening agents are often advertised as beneficial, but the adverse effects have been shown to affect the skin barrier and physiology (Souza, 2018).

The importance of cosmetic usage with regards to appearance manipulation has, until recently, been relatively under researched. This is perhaps surprising given the scientific interest in physical appearance more generally. For example, there is a large body of literature which considers the advantages of being attractive. In occupational psychology we see that more attractive people have distinct social advantages in the workplace they are more likely to be hired than their less attractive counterparts (Ling et al., 2019). In politics they are more likely to be elected and to attract media coverage (Waismel-Manor and Tsifti, 2011).

Gray and Boothroyd (2012) affirmed that cosmetics may therefore be used to enhance attractiveness through an exaggeration of these cues. Indeed, research does show that cosmetics do enhance attractiveness when professionally applied. Attractiveness enhancement through cosmetics may be attributable, then, to an exaggeration of, for example, sexual dimorphism in both facial color contrast and facial feature size, in addition to an exaggeration in those contrasts and feature sizes that decline with age.

Nevertheless, consistent with the research that in the main supports attractiveness enhancement through cosmetics, both lab and field studies, particularly as conducted by evolutionary psychologists, have shown that women may use cosmetics effectively to enhance their attractiveness. This has been evidenced through more protective male behaviour in a courtship setting.

Statement of Problem

Cosmetics play an important role in personal care and self-expression. They serve various functions, from enhancing appearance to providing skincare benefits. Cosmetics are widely used to enhance physical appearance, helping people feel more confident and expressive. Makeup, for example, can be used to highlight features, such as eyes, lips, or skin tone, allowing individuals to experiment with different looks and styles. When individuals feel they look good, it can have a significant impact on their self-esteem. Cosmetics can boost confidence by covering blemishes, evening out skin tone, and giving a polished appearance, which often leads to a more positive self-image. This study therefore looks at the health threat attached to cosmetic in tertiary institutions.

Globally the world is moving on very fast lane in all phases of life. Individuals are always looking for easy way out to have good skin and beauty while underplaying or ignoring possible negative outcome of their actions in cosmetics consumption. women and especially the young lady's skin has suffered greatly over the years due to emergence of technologically devised means of providing alternatives to highly change of their natural skin by engaging in cosmetics consumption. Since its invention in 1957, cosmetics consumption has become a well-loved convenience robbing for millions of consumers all over the world. The introduction, inclusion and celebration of cosmetics consumption among women and especially the young lady's with its resultant massive negative

effects on their skin calls for caution and vigorous campaign and enlightenment on how women and especially the young lady's skin could be fortified to maintain a natural skin and beauty of many population worldwide. The main focus of this study, therefore, is to assess the perception of the effects of cosmetics usage on the health of Students in Tertiary Institutions in Osun State.

Objectives of the Study.

The objectives of the study are to:

- (a) find out the type of cosmetics being used by the Tertiary Institutions students in Osun State
- (b) find out the awareness level of the components of the cosmetics being used by the students in Osun State tertiary institutions.
- (c) find out student's perception of the effects that these cosmetics could have on their Health.

Research Hypotheses

- (a) There is no significant relationship between the type of cosmetics being used and Health of students in Osun State tertiary institutions.
- (b) There is no significant relationship between the level of awareness of the components of cosmetic and their usage by the students.
- (c) There is no significant relationship between student's perception of the effects of cosmetics and their usage by students.

Significance of the Study

This study was to help an individual people especially the higher institution students Osun State tertiary institutions, to have knowledge on the health threat attached to the use of cosmetics and also provide recommendations as solution to those health threat attached to the use of cosmetics.

This research provided adequate information on the research objectives that were raised for this study.

Methodology

This study used a descriptive research design. A multi-stage random sampling technique was used. All the tertiary institution students in the study area in Osun State were the population for this study. From the three (3) Senatorial Districts in Osun State, five (5) Tertiary institutions were selected using simple random technique. Five (5) departments were selected in each of the Tertiary institutions while two hundred (200) respondents were selected from each of the selected departments using systematic random sampling technique. Through this process a total of 1000 respondents were selected and used for the study. Data were collected through the use of self-designed and validated questionnaire. Test-retest method of reliability was used and reliability co-efficient of 0.89 was obtained using Spearman Brown's correlation co-efficient formula. The questionnaire contained four Sections A, B, C and D. Section A was used to elicit Demography data of the respondents while sections B,C and D elicit information from the respondents using the questionnaire titled "An assessment of the perception of students in Tertiary Institutions on the effects of usage of cosmetics on health" (AAPSTIEUCOH). Section

B contained five (5) structured items on the type of cosmetics being used by the Tertiary Institutions students in Osun State while Section C was made up of five (5) structured items on the level of awareness of the components of the cosmetics being used by the students in Osun State tertiary institutions. Section D equally consisted of five (5) structured items on student's perception of the effects that these cosmetics could have on their Health. The descriptive statistics of frequency count and percentages were used to analyze and interpret the data obtained from the respondents through questionnaire while inferential statistics of Chi-square was used in testing the formulated hypotheses at 0.05 Alpha Level of significance.

Result

Table 1: Respondent's Responses on the type of cosmetics being used by the Tertiary Institutions students in Osun State

S/N	Items	Agreed	Disagreed
1	Usage of Bronzer could cause health threat such as skin cancer, skin burning, Skin irritation, Acne or breakouts, Allergic reactions, Hormonal imbalances, Hair damage.	120 (12%)	880 (88%)
2	Should production of skincare products be more strictly regulated for health and safety	110 (11%)	890 (89%)
3	Usage of Lip balm are harmful to your health in the long term	350 (35%)	650 (65%)
4	Are you concerned about the health threat of hair care products	300 (30%)	700 (70%)
5	Have you ever experienced any health issues (e.g., skin irritation, breakouts, allergic reactions) that you believe were caused by using make-up	130 (13%)	870 (87%)

From the table above, majority (75%) of the respondents disagreed that usage of bronzer could cause health threat such as skin cancer, skin burning, Skin irritation, Acne or breakouts, Allergic reactions, Hormonal imbalances, Hair damage, while (25%) of the respondents agreed, also (70%) of the respondents disagreed that skincare products should be more strictly regulated for health and safety, while (30%) of the respondents agreed. Majority (88%) of the respondents disagreed that usage of Lip balm are harmful to your health in the long term, while (12%) of the respondents agreed. On the majority (89%) of the respondents disagreed that they were concerned about the health threat of hair care products, while (11%) of the respondents agreed. Majority (87%) of the respondents disagreed, while (13%) of the respondents agreed.

Table 2: Respondents' Responses on the level of awareness of the components of the cosmetics being used by them.

S/N	ITEMS	Agreed	Disagreed
6	Usage of retinol to make cosmetics may not automatically cause any health problem	145 (15%)	855 (85%)
7	I am not aware of the salicylic acid in making cosmetics	130 (13%)	870 (87%)
8	Aare you aware that dimethicone are the part of ingredients to make cosmetic product	200 (20%)	900 (90%)
9	Aare you aware that jojobal oil are not part ingredients to make cosmetic	190 (19%)	810 (81%)
10	I am not aware of that cetyl alcohol also part of ingredients to make cosmetic	120 (12%)	880 (88%)

Table 2 above revealed that majority (85%) of the respondents disagreed that they were not aware of the potential health risks associated with the use of cosmetics, while (15%) of the respondents agreed they were aware, likewise (87%) of the respondents disagreed that they were not aware of the ingredients in cosmetics before using a new cosmetic product, while (13%) of the respondents agreed that they were aware. Similarly Majority (90%) of the respondents disagreed that they are not read to consult a dermatologist or health professional before using a new cosmetic product cosmetics you use are harmful to your health in the long term, while (20%) of the respondents agreed they are read. Equally the majority (81%) of the respondents disagreed that tertiary institutions offer courses or awareness programs about the safe use of cosmetics and their potential health impacts, while (19%) of the respondents agreed. And Majority (88%) of the respondents disagreed that they were aware of any information provided by cosmetic companies about the health and safety of their products, while (12%) of the respondents agreed they were aware.

Table 3: Respondents' Responses on their perception of the effects of usage of cosmetics on Health.

S/N	Items	Agreed	Disagreed
11	Usage of cosmetics could cause health threat such as skin cancer, skin burning, Skin irritation, Acne or breakouts, Allergic reactions, Hormonal imbalances, Hair damage.	350 (35%)	650 (65%)
12	Production of Cosmetic products are strictly regulated by the Government for health and safety	300 (30%)	700 (70%)
13	Usage of cosmetics may have long term harmful effects on one's health.	120 (12%)	880 (88%)
14	I am concerned about the ingredients in cosmetics	110 (11%)	890 (89%)
15	Skin irritation, breakouts, allergic reactions are caused by using cosmetics	130 (13%)	870 (87%)

Table 3, above exposed that majority (84%) of the respondents disagreed that they use different type of cosmetics frequently, while (16%) of the respondents agreed, also majority (88%) of the respondents disagreed that Students of today need use of cosmetics to maintain their skin in campus, while (12%) of the respondents agreed. Similarly Majority (60%) of the respondents disagreed that cosmetics can have an effect on your overall health, while (40%) of the respondents agreed. Equally the majority (81%) of the respondents disagreed that do cosmetics contribute to skin conditions such as acne or eczema, while (19%) of the respondents agreed. And Majority (88%) of the respondents agreed on the potential health risks of using cosmetics, while (12%) of the respondents were disagreed.

Hypotheses Testing.

Table 4: X^2 Calculation on significant relationship between the type of cosmetics being used and Health of students in Osun State tertiary institutions.

Table Value	Level of Significance	Df	Calculated Value	Decision
9.488	0.05	4	322.4	Rejected.

Table 4 presented a table value of 9.488 which is lower than the calculated value of 322.4 under the Degree of Freedom of 4 and at 0.05 Level of significance. The Hypothesis which stated that there is no significant relationship between the type of cosmetics being used and Health of students in Osun State tertiary institutions was accepted. This implies that significant relationship exists between usage of cosmetics and students health in Osun State.

Table 5: X^2 Calculation on significant relationship between the level of awareness of the components of cosmetic and there usage by the students.

Table Value	Level of Significance	Df	Calculated Value	Decision
9.488	0.05	4	1749.4	Rejected.

The above table showed a higher Table value of 9.488 while the Calculated value was 1749.4. The stated hypothesis which stated that, there is no significant relationship between the level of awareness of the components of cosmetic and there usage by the students. Was therefore rejected meaning that significant relationship exists between student's level of awareness of the components of cosmetic and effects of cosmetics on their health in Osun State.

Table 6: X^2 Calculation on significant relationship between student's perception on usage of cosmetics and its effects on health.

Table Value	Level of Significance	Df	Calculated Value	Decision

9.488	0.05	4	1659.4	Rejected.
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The above table showed a higher Table value of 9.488 while the Calculated value was 1659.4. The hypothesis which stated that there is no significant relationship between student's perception on usage of cosmetics and its effects on health was therefore rejected meaning that significant relationship exists between student's perception on usage of cosmetics and its effects on health.

Discussion of Findings

Majority (75%) of the respondents disagreed that usage of bronzer could cause health threat such as skin cancer, skin burning, Skin irritation, Acne or breakouts, Allergic reactions, Hormonal imbalances, Hair damage, while (25%) of the respondents agreed. And the hypothesis question of the table also indicted the chi-square analysis with a table value of 9.488 which is higher than the calculated value of 322.4 under the Degree of Freedom of 4 and at 0.05 Level of significance. The Hypothesis which stated that there is no significant relationship between usage of cosmetics and students Health in study areas was rejected. This implies that significant relationship exists between usage of cosmetics and students health in Osun State. This finding was in line with the declarations made by Alaluf, R., Chika, I., & Stephen, A. O. (2020) examined the health implications of cosmetic products, highlighting that ingredients such as parabens, phthalates, and sulfates, commonly found in cosmetics, can disrupt hormonal functions and contribute to skin damage. Also Studies completed by Parker E.H., Mo, M. A., & Marques, D. (2019) emphasize that cosmetic products could contribute to skin conditions like acne, eczema, and allergic dermatitis. Also Williams W., Miller, L., & Sullivan, M. (2020) observed a higher incidence of skin irritation and breakouts among young users of certain skincare products, suggesting that improper or excessive use of cosmetics can compromise skin health. Majority (85%) of the respondents disagreed that they were not aware of the potential health risks associated with the use of cosmetics, while (15%) of the respondents agreed they were aware. This result is collaborate with Adewumi K.L. Banerjee, A., & Pal, D. (2022) in their study of Nigerian students, found that while 70% of respondents agreed that cosmetics could have negative health effects, only 40% modified their cosmetic usage due to health concerns. Also majority (88%) of the respondents disagreed that Students of today need use of cosmetics to maintain their skin in campus, while (12%) of the respondents agreed and hypothesis which stated that, there is no significant relationship between student's perception on cosmetics usage and effects cosmetics on their health in Osun State was tested and the result showed a higher Table value of 9.488 while the Calculated value was 1749.4. The stated hypothesis which stated that, there is no significant relationship between student's perception on cosmetics usage and effects of cosmetics on their health in the study areas was therefore rejected meaning that significant relationship exists between student's perception on cosmetics usage and effects cosmetics on their health in Osun State. This result is line with findings of Gbadamosi, B. A., Adeyemo, S. L., & Fadare, O. A. (2021) found that while many students acknowledge the health risks associated with cosmetics, their usage remains frequent due to the desire to conform to social norms and peer pressure. Some students, particularly those in urban Tertiary Institutions, express limited awareness of the potential dangers posed by the chemicals in cosmetics. Also Baker O.P., Williams, K. M., Thompson, C. J., & David, L. P. (2020) argued that students' perceptions of beauty and health are shaped by societal expectations, which often prioritize appearance over health consequences. Moreover, students who are more self-conscious

about their physical appearance tend to use cosmetics more frequently. Ogunyemi, O. T., Ajayi, K. M., & Adegboyega, O. R. (2022) showed that Nigerian students who had low self-esteem were more likely to use cosmetics, perceiving them as a means to improve their self-image. However, such behavior sometimes leads to neglect of the potential health risks, as students prioritize immediate aesthetic benefits over long-term health concerns. Majority (65%) of the respondents disagreed that usage of cosmetics could cause health threat such as skin cancer, skin burning, Skin irritation, Acne or breakouts, Allergic reactions, Hormonal imbalances, Hair damage, while (35%) of the respondents agreed. And the hypothesis question of the table also indicted the chisquare analysis with a table value of 9.488 which is higher than the calculated value of 1659.4. under the Degree of Freedom of 4 and at 0.05 Level of significance. The Hypothesis which stated that there is no significant relationship between usage of cosmetics and students Health in study areas was rejected. This implies that significant relationship exists between usage of cosmetics and students health in Osun State. This finding was in line with the declarations made by Alaluf, R., Chika, I., & Stephen, A. O. (2020) examined the health implications of cosmetic products, highlighting that ingredients such as parabens, phthalates, and sulfates, commonly found in cosmetics, can disrupt hormonal functions and contribute to skin damage. Also Studies completed by Parker E.H., Mo, M. A., & Marques, D. (2019) emphasize that cosmetic products could contribute to skin conditions like acne, eczema, and allergic dermatitis. Also Williams W., Miller, L., & Sullivan, M. (2020) observed a higher incidence of skin irritation and breakouts among young users of certain skincare products, suggesting that improper or excessive use of cosmetics can compromise skin health.

Conclusion

The usage of cosmetics among students in tertiary institutions is a common practice influenced by social, cultural, and psychological factors. However, there is a significant lack of awareness about the potential health risks associated with cosmetic products, despite the growing body of literature emphasizing these risks. While many students are aware of the potential health consequences, only a fraction adjust their cosmetic usage based on health concerns. Increased awareness campaigns, stricter regulation of cosmetic products, and consumer education are necessary to reduce health risks among students and promote safe cosmetic usage.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. Tertiary Institutions should implement health education programs and workshops to inform students about cosmetic ingredients, their potential side effects, and how to identify safe and effective products.
2. Tertiary Institutions could partner with cosmetic brands that focus on natural or organic products to promote awareness and accessibility. They could also host events that highlight the benefits of using eco-friendly and safe cosmetics.
3. Governments and regulatory bodies should strengthen the regulation of cosmetic products and enforce clear labeling that provides detailed information on ingredients and potential side effects. This can empower students to make informed decisions regarding the products they use.

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