

Level of Knowledge and Attitude of Senior High School 1 Sidrap Teenagers Regarding the Selection and Usage of Facial Whitening Cream Cosmetics

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Abstract

Beauty is often associated with having an ideal shape, white and glowing skin, white teeth, and a pleasant voice. Smooth skin is a crucial factor in one's appearance, reflecting their identity. This encourages individuals, especially teenage girls, to aspire to achieve flawless skin. One cosmetic product frequently used by teenagers in Indonesia is the whitening cream, commonly referred to as bleaching cream. The emergence of facial whitening products in the market is driven by consumer demand, aligning with the current trend among teenagers who seek fair skin, thus impacting teenagers' pursuit of perfection. The objective of this study was to assess the level of knowledge and attitudes among adolescents at SMAN 1 Sidrap regarding the selection and use of facial whitening cream cosmetics. Respondents were selected using a cross-sectional design method, aiming to determine the knowledge and attitudes of adolescents at SMAN 1 Sidrap. The results indicate that the knowledge level is in the low category (35.68%), while the attitudes fall into the very good category (20.03%). The Chi-Square test yielded a p-value of 0.325, revealing no significant relationship between the level of knowledge and attitudes of SMAN 1 Sidrap adolescents toward the selection and use of facial whitening cream cosmetics.

Keywords: Knowledge, Attitude, Adolescent, Face Whitening Cream

Key Messages:

- The study underscores the importance of addressing the knowledge gap through education and positive reinforcement, as these factors could lead to more informed choices and practices regarding the use of whitening cosmetics.

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1. Introduction

Beauty is often associated with having an ideal shape, white and radiant skin, white teeth, and a pleasant voice (1). Smooth skin is a vital aspect of one's appearance that reflects their personality. This encourages individuals, especially young women, to aspire to attain flawless skin. Among the cosmetic products popular among Indonesian teenagers is whitening cream, commonly referred to as bleaching cream(2). The surge in facial whitening products in the market is driven by consumer demand, particularly among teenagers who strive for fair skin and aim to achieve a flawless look (3).

According to routine surveillance conducted by the Food and Drug Monitoring Agency (BPOM) across Indonesia on cosmetics circulating from October 2014 to September 2015, 30 types of cosmetics were found to contain hazardous ingredients (4). Among these, 13 were imported cosmetics, and 17 were domestically produced. The identified harmful ingredients included K3 red and K10 red dyes (rhodamine B), mercury, retinoic acid, and hydroquinone. Over the past 5 years, the number of cosmetic products found to contain hazardous or prohibited ingredients has exhibited a tendency to increase, ranging from 0.65% to 0.74% (4). A bleaching cream is a formulation of chemicals and/or other ingredients with the ability to fade skin blemishes. Prolonged use can lead to the reduction or elimination of skin hyperpigmentation. However, continued usage can result in permanent pigmentation effects.

In line with the Regulation of the Minister of Health of the Republic of Indonesia No. 445/MENKES/PER/V/1998 concerning ingredients, preservatives, coloring agents, sunscreens, and substrates in cosmetics, it's worth noting that mercury is highly toxic in even small amounts. Indications of mercury toxicity include changes in skin color, appearance of black spots, and allergic reactions (5). At higher doses, it can lead to irreversible kidney and brain damage, as well as adverse effects on fetal development. Even brief exposure to high doses can cause lung damage, vomiting, and diarrhea (6). In a study by Khairina, D. A., & Dalimunthe, D. A. (2017) conducted at a private high school in Medan, out of 281 respondents, 167 respondents (59.4%) reported using whitening cosmetics, while 114 respondents (40.6%) did not (7). Furthermore, 207 respondents (73.7%) demonstrated a good level of knowledge regarding the use of whitening cosmetics (7).

Adolescence marks a transitional phase from childhood to adulthood, and during this time, teenagers often seek to explore new experiences, including the use of cosmetics (8). Among the prevalent choices are whitening cream products, which promise quick improvements in skin tone and texture. This aspect encourages teenagers, especially those in high school like High School 1 Sidrap, located on Jalan Kartini No. 1 Rappang, Pancarijang District, Sidenreng Rappang Regency, South Sulawesi Province. As a top-ranking institution in Sidrap Regency, Senior High School 1 Sidrap has demonstrated a higher level of knowledge and positive attitudes toward cosmetics compared to several other high schools in the Pancarijang District. This research seeks to address the identified concerns by assessing the knowledge and attitudes of adolescents at SMA 1 Sidrap regarding the selection and use of facial whitening cream cosmetics.

2. Methods

This research follows a descriptive approach, which aims to assess the knowledge and attitudes of adolescents at SMAN 1 Sidrap regarding the selection and use of facial whitening cream cosmetics. The study was conducted at SMA Negeri 1 Sidrap, involving the distribution of online questionnaires to female students. The population under investigation consisted of 527 students from SMA Negeri 1 Sidrap. For this study, a sample size was determined using the Isaac & Michael table, resulting in a rounded sample of 213 participants out of a total population of 550. The chosen margin of error was 5%. Data analysis employed a multiple-choice test format with four alternative answers: a, b, c, and d. Each correct answer was assigned a value of 1, while incorrect answers were assigned a value of 0. In assessing the attitudes of SMAN 1 Sidrap adolescents toward the selection and use of facial whitening cream cosmetics, the Likert scale was employed. This scale is a valuable tool for gauging the attitudes of respondents on this subject. The data analysis used Spearman's correlation test with SPSS and the significance level of $p < 0.05$.

3. Results

In this study, the total number of young respondents from SMAN 1 was 213 individuals. The observed characteristics of the respondents included their age and class.

Table 1. Distribution of Respondent Characteristics

Characteristics	n	%
Age (Years)		
14 - 15	27	17.2
16 - 17	137	64.3
18 - 19	49	28.5

Characteristics	n	%
Class		
X	71	33.3
XI	71	33.3
XII	71	33.3
Total	213	100

Table 1 shows that most of the respondents in this study were 16-17 years old, namely 64.3%, and young people, namely 14-15 years, 17.2%. The class of respondents is divided equally in each class, namely 71 people in each class.

Table 2. Variable level of knowledge and attitudes

Variable	Average	Test standard	Category
Knowledge	35.68	81-100: Very high 61-80: Tall 41-60: Currently 21-40: Low 0-20: Very low	Low
Attitude	20.03	Very good = $19.5 < x < 24$ Good = $15 < x < 19.5$ Bad = $10.5 < x < 15$ Very bad = $6 < x < 10.5$	Very good

According to Table 2, the average knowledge level is 35.68, indicating that the 213 teenagers from SMAN 1 possess a low level of knowledge. As for the attitude variable, the average value of 20.03 places them in the "very good" category.

Table 3. The relationship between knowledge and attitudes of adolescents towards the selection and use of facial whitening creams

Variables (X and Y)	Spearman's test	
	Correlation Coefficient	Sig. (2-tailed)
Level of Knowledge and Attitude	-0.04	0.954

Table 3 indicates that there is no significant correlation between the respondents' knowledge and their attitudes toward the selection and use of facial whitening creams ($p = 0.954$)

4. Discussion

Based on the obtained research results, the average knowledge level among high school students is 35.68, falling within the 21-40 interval, which corresponds to the "low knowledge level" category. Therefore, it can be concluded that young women at SMAN 1 Sidrap possess a limited understanding of the selection and use of facial whitening cream cosmetics. Knowledge is influenced by various factors, including experience; individuals tend to accumulate more knowledge as they gain more experience (9). Additionally, teenagers predominantly rely on the internet and social media to access information beyond what is taught in school (10). This aligns with the contemporary technological landscape, where information is readily accessible due to technological advancements.

The findings of this study diverge from the research conducted by Sabilla FH (2012), where a notable difference lies in the majority of respondents' knowledge level concerning the use of hazardous facial whitening creams, which was categorized as "good." The common ground between the two studies lies in their use of young women as respondents (11). Additionally, both studies measured similar indicators or variables using a knowledge questionnaire. However, it's noteworthy that Herlina, H., & Vestabilivy, E. (2019) employed true-false questions for their knowledge questionnaire, a format which can potentially lead respondents to guess or provide answers they are uncertain about, unlike the approach taken in this study (12). Khairina DA (2017) points out that one weakness of true-false questions is their tendency to encourage guessing, especially when the correct answer

isn't known (7). This type of question is generally better suited for assessing basic information recognition skills (13). In contrast, the current study employed multiple-choice questions featuring four alternative answers. This choice was made to minimize the likelihood of random guessing. This differs from true-false questions which offer only two alternatives. According to Fransiska M (2013), a teenager's elevated level of knowledge correlates with a more meticulous and cautious approach to the selection and use of whitening cosmetics (14). The absence of knowledge concerning the hazards of cosmetics can lead to adverse outcomes when using whitening products, manifesting as skin inflammation, swelling, enlarged pores, and skin peeling.

The study's findings revealed that the attitude of SMAN 1 Sidrap students toward the selection and use of whitening cream cosmetics yielded an average score of 20.03. This score falls within the range of $19.5 < x < 24$, classifying it as a "very good" attitude category. Remarkably, none of the respondents exhibited a poor attitude. This outcome can be attributed to various influencing factors that contribute to the formation of individuals' attitudes. These factors include personal experiences, the impact of social influences, emotional considerations, and cultural background (7). In accordance with Fransiska M (2013), there exists a positive correlation between a teenager's level of knowledge and their meticulousness and caution in the process of selecting and utilizing whitening cosmetics (14). Conversely, a lack of awareness concerning the potential hazards associated with cosmetics can result in adverse consequences when using whitening products, manifesting as skin swelling, inflammation, widened pores, and skin peeling (15).

The findings of the study revealed that the attitude of SMAN 1 Sidrap students towards the selection and use of whitening cream cosmetics yielded an average score of 20.03, placing it within the interval of $19.5 < x < 24$, categorizing it as a "very good" attitude. Notably, no respondents exhibited a negative attitude. This outcome can be influenced by several factors that contribute to the formation of one's attitude, such as personal experiences, the impact of others' influence, emotional considerations, and cultural background (7). Consistent with the results of interviews conducted with various students across different classes at SMAN 1 Sidrap, specific insights were gained. In an interview with a student from class X, the decision to not use whitening cream stemmed from personal desires. In contrast, students from class XI refrained from using whitening cream due to their sensitive skin, fearing potential adverse effects. Among class XII students, an experience with a particular whitening cream resulted in irritation, leading to issues like blackheads and pimples. Consequently, the student ceased using the product.

The possessing good knowledge tends to foster positive attitudes (16). Nevertheless, past research demonstrates that real-world outcomes do not always mirror this theory. In some cases, individuals exhibit positive behaviors despite holding negative knowledge or attitudes. This phenomenon is evident in the current study, where adolescents' knowledge about whitening cosmetics remains within the low category; however, their attitudes toward selecting and using such products are favorable. This shift in behavior could be attributed to personal experiences and constructive input from others, guiding them toward proper and effective use of whitening cosmetics, thereby minimizing undesirable side effects. This positive shift underscores how adolescents can improve their practices in using whitening cosmetics. The outcomes of this study contrast with the findings from research carried out by Rajagukguk WN (2018) at SMU Negeri 1 Meulaboh in 2013. In their study, the analysis of the relationship between students' knowledge about using facial whitening cosmetics and skin health revealed a probability value of 0.00 (<0.05) (17). This implies a statistically significant relationship between the two variables—knowledge and attitude of respondents toward the use of facial whitening cosmetics.

5. Conclusion

The conclusion of this study is that the adolescents from SMAN 1 Sidrap exhibit a low level of knowledge about the selection and use of facial whitening cream cosmetics. However, their attitudes towards these products are notably positive, falling within the "very good" category. This attitudinal difference might be attributed to various factors, including personal experiences, external influences, and cultural considerations. Notably, the study's results are inconsistent with some prior research, indicating that while knowledge and attitudes often correlate positively, real-world outcomes can vary. This suggests that adolescents can possess favorable attitudes even if their knowledge remains limited.

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